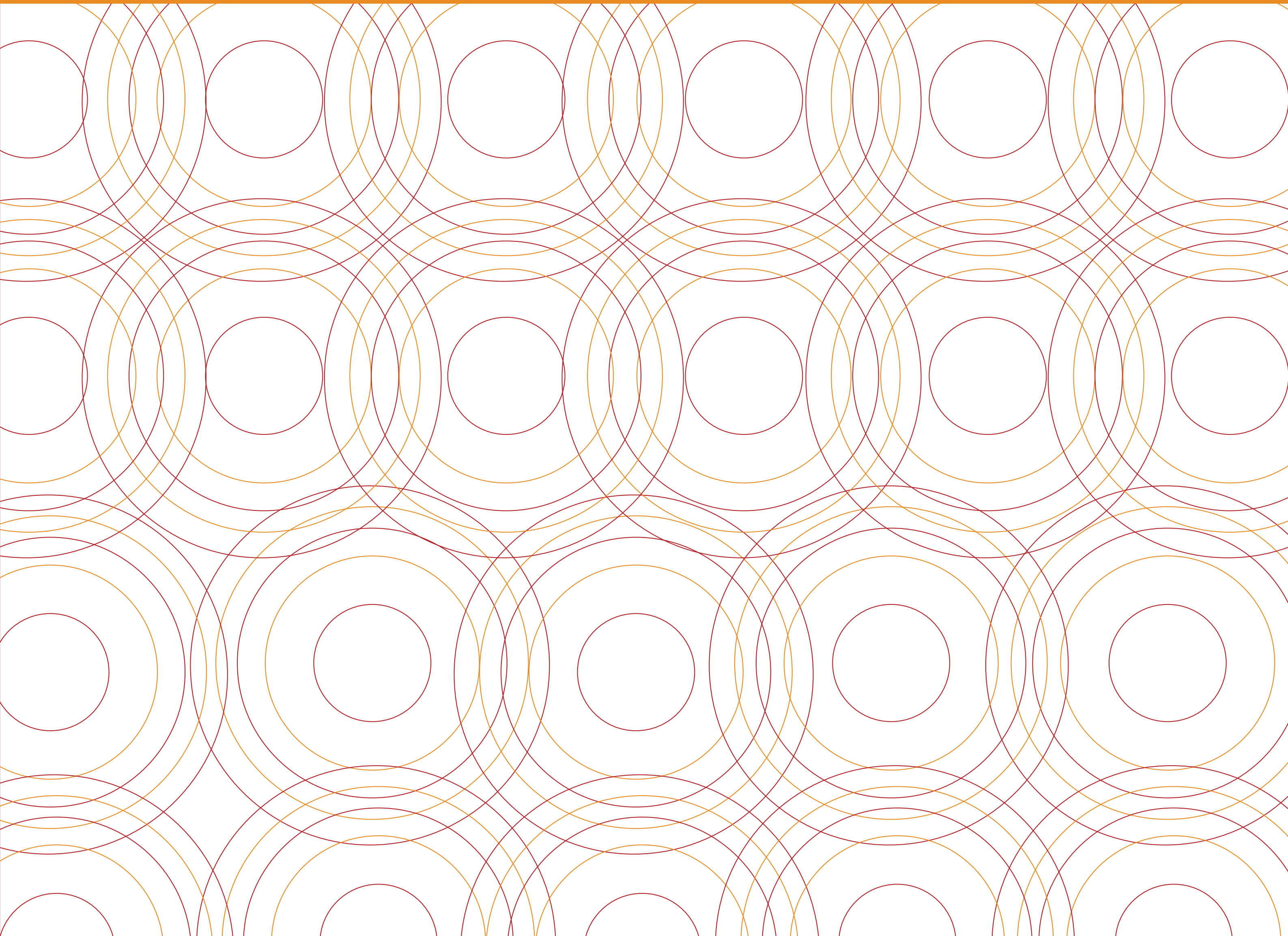
An Chomhairle Náisiúnta um Oideachas Speisialta
National Council for Special Education

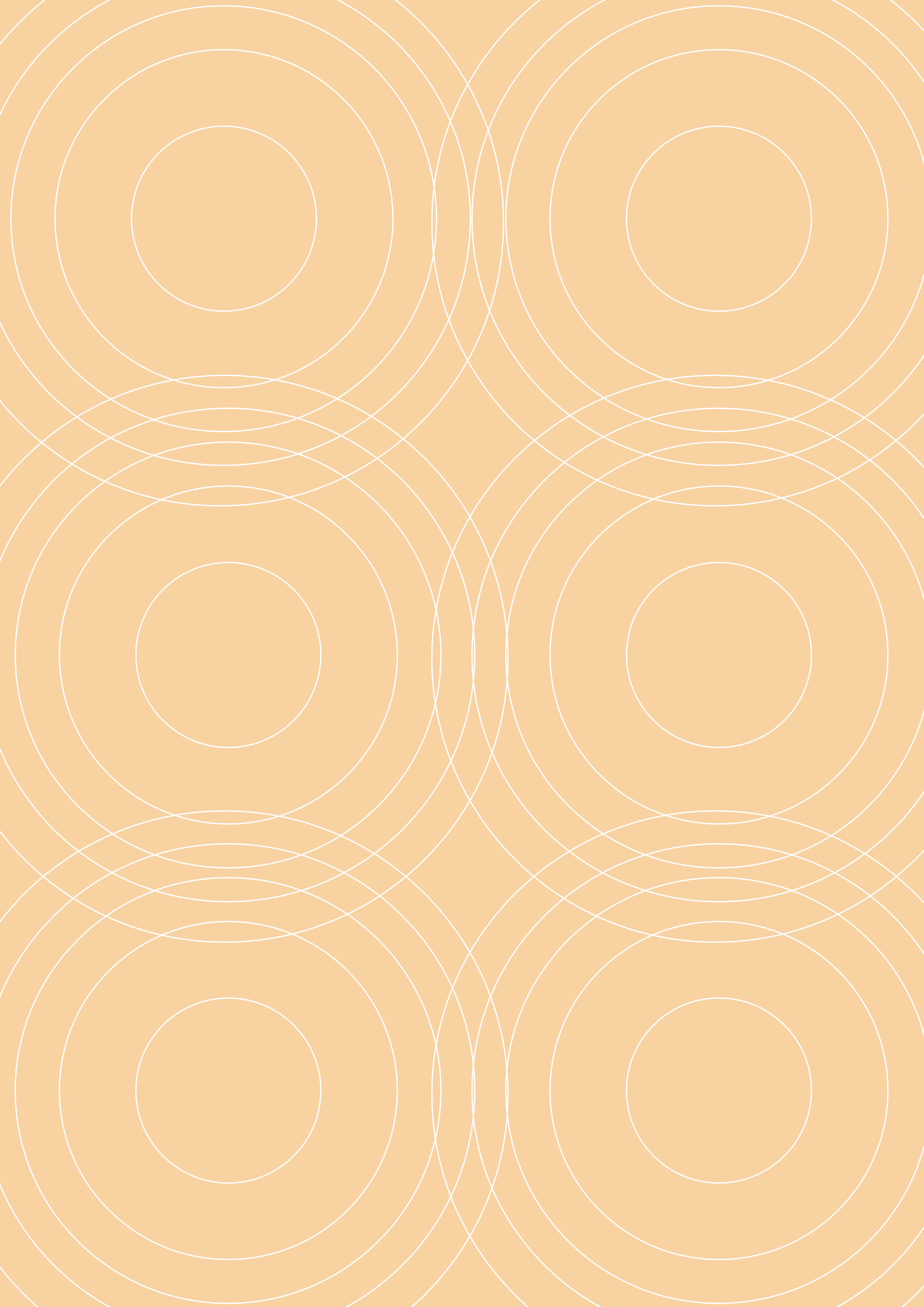
Educational Experiences and Outcomes for Children with Special Educational Needs

A Secondary Analysis of Data from the Growing Up in Ireland Study

Jude Cosgrove, Caroline McKeown, Joseph Travers, Zita Lysaght, Órla Ní Bhroin and Peter Archer

NCSE RESEARCH REPORTS NO: 17





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Keywords

Special educational needs (SEN); educational experiences; educational outcomes; achievement; engagement; well-being.

Abstract

In April 2013, the NCSE commissioned a study to explore the experiences and outcomes of children with special educational needs using data collected from nine-year-old children and their parents, teachers and school principals as part of Wave I of the Growing Up in Ireland (GUI) study. Data were collected between September 2007 and June 2008 on the basis of a nationally representative sample of 8,568 children. Qualitative data were collected from a subset of 122 of these children and their parents. Both qualitative and quantitative datasets were used in the present study. A research team from the Educational Research Centre, Drumcondra, and St Patrick's College, Drumcondra, undertook the study. The prevalence rate for SEN that is estimated for the present study (27.8 per cent) is comparable to a 2011 estimate of 25 per cent (also on the basis of GUI data), and includes children who have not been formally identified as having these needs. Some limitations in the SEN classification scheme arise from the content of the questionnaires used with teachers and parents. The literature review and a 2012 framework describing the outcomes of children with special educational needs were used to guide the quantitative analysis, which groups outcomes under four headings:

- engagement and attendance
- attainment / achievement
- happiness / well-being
- independence.

Some limitations of the outcome measures used are noted. The 12 SEN groups were compared with the 'no special educational needs' group on each of these sets of outcomes as well as on a set of social, cultural, demographic and economic characteristics. A subset of outcomes was then selected for more detailed regression analysis (that is, comparisons of the outcomes of the SEN groups both before and after adjusting for differences in background characteristics of these groups). Results confirm existing findings (such as the clustering of socioeconomic disadvantage in some of the SEN groups), as well as providing new insights (for example the 'additive' impact of social, emotional and behavioural difficulties when co-occurring with another SEN). The qualitative analyses initially identified 31 sets of interviews for more in-depth thematic analysis: nine with children with an identified special educational need, 19 with possible special educational need, and a further three with siblings with special educational needs. Qualitative results are organised into themes emerging across the interviews, some of which confirm the quantitative findings, others adding context and depth to the quantitative results. Conclusions and a total of 17 recommendations are grouped under seven headings:

- Assessment and progress
- Social, emotional and behavioural difficulties
- Clustering of children with special educational needs in schools and classrooms
- Children's engagement and parents' educational expectations
- Variations in the strengths and needs of children with special educational needs
- Children's experience of bullying; and home and family environment.

Foreword

There has been significant investment to support children with special educational needs in our schools over the past decade or so, however there is limited systematic information about how these children are faring in relation to educational engagement, progress or outcomes.

In 2013, the NCSE commissioned a team from the Educational Research Centre and St Patrick's College to analyse data from the Growing Up in Ireland (GUI) government-funded longitudinal study of about 8,500 nine-year old Irish children and establish if it could provide good information in this area.

Their report provides a considerable insight into how these children, identified insofar as possible from teacher and parent reports, are faring on a range of fronts including reading and maths test results, well-being, independence, bullying, attendance and liking school, relative to children without special educational needs. The report not only compares children with, and without, special educational needs: it also compares experiences and outcomes across groups of children with different types of needs.

Data from wave 2 of the GUI study have recently become available. The NCSE has already commissioned a follow-up analysis to establish how these children are faring at age 13 and what progress has been made since they were nine.

In the meantime, the findings of this research paper should be of considerable interest to those working to improve educational outcomes for children with special educational needs.

Teresa Griffin
Chief Executive Officer

Table of Contents

Tables

Figures

List of Acronyms

AfA	Assessment for All (UK study)
AMF	Anonymised Microdata File
ASD	Autistic Spectrum Disorder (including Asperger's syndrome)
DCYA	Department of Children and Youth Affairs
DEIS	Delivering Equality of Opportunity in Schools
ERC	Educational Research Centre
ESRI	Economic, Social and Research Institute
EWO	Educational Welfare Officer
EWS	Educational Welfare Services
GAM	General Allocation Model
GLD	General Learning Disability
GUI	Growing Up In Ireland
IQDA	Irish Qualitative Data Archive
ISCO	International Standard Classification of Occupations
ISEI	Internationonal Socio-Economic Index
ISSDA	Irish Social Science Data Archive
LS	Learning Support
NCCA	National Council for Curriculum and Assessment
NCSE	National Council for Special Education
NEWB	National Education Welfare Board
OECD	Organisation for Economic Co-operation and Development
OR	Odds Ratio
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
RMF	Researcher's Microdata File
RT	Resource Teaching / Teacher
SDQ	Strengths and Difficulties Questionnaire
SEAS	Special Education Administrative System
SEBD	Social, Emotional or Behavioural Difficulty
SEN	Special Educational Need(s)
SEND	Special Educational Needs and Disability
SENO	Special Educational Needs Organiser
SES	Socio-Economic Status
SLD	Speech and Language Difficulty
SNA	Special Needs Assistant
SSP	School Support Programme (under DEIS)
TCD	Trinity College Dublin
TIMSS	Trends in International Mathematics and Science Study

Executive Summary

Introduction

In April 2013, the NCSE commissioned the Educational Research Centre and St Patrick's College, Drumcondra, to undertake a study to explore the outcomes of children with special educational needs using data collected from nine-year-old children and their parents, teachers and school principals as part of Wave I of the Growing Up in Ireland (GUI) study. Data for GUI were collected between September 2007 and June 2008 from a nationally representative sample of 8,568 children. Qualitative data were collected from a sub-set of 122 of these children and their parents. Both datasets are used in this study, with the former data complementing the latter's findings.

Since this study uses only data from Wave I of GUI, it should be viewed as a baseline which can be built on using Wave II (when the children were 13), and future waves from GUI, along with other relevant data.

The NCSE specified that the study's main objective was to provide new evidence to help us understand more clearly how children with special educational needs, and specific identifiable subgroups of these children, were faring at school in terms of outcomes which relate to academic attainment / achievement and expectations of academic attainment / achievement; participation in and engagement with school and learning; learning progress; and independence skills, self-esteem, well-being at school and relationships with teachers and peers. Two further aims were to identify and analyse the factors associated with children's outcomes and both formal and less formal educational outcomes; and to identify potential implications for educational policy and / or practice arising from the analysis.

Identification and Classification of Children with Special Educational Needs

Some time was spent identifying children with special educational needs in the GUI data and developing a system for classifying them into meaningful groups. How the children have been grouped by their need underpins all aspects of the study. As a first step in this classification, eight groups were identified using information from the parent and teacher questionnaires. These are not mutually exclusive, and some children with more than one special educational need fell into more than one group. The eight groups arising from parent and teacher reports are outlined below:

Children with physical or sensory disabilities (group 1) (250 or 2.9 per cent of all children) were identified on the basis of teachers' reports. Teachers were not asked separate questions about visual impairment, hearing impairment or mobility issues. On the basis of parents' reports, children with physical or sensory disabilities were identified as follows (note that there is some overlap in the first four):

- 37 per cent (92 children) had a visual impairment
- 17 per cent (43 children) had a hearing impairment
- 12 per cent (29 children) had difficulties with mobility
- 32 per cent (79 children) had a chronic illness or disease
- 11.5 per cent (29 children) were unspecified.

Many children in this group had more than one of these conditions: while 48.3 per cent of the 250 children had one of the five conditions, 40.2 per cent were classified with two or more (with 11.5 per cent having unknown or unspecified conditions, as above). Therefore, this group represents a wide range of conditions and needs.

Children with social, emotional or behavioural difficulties (SEBD[1]; 1,575 children, or 18.4 per cent of all children – 11 per cent **medium risk (group 2)** and 7.4 per cent **high risk (group 3)** – were identified on the basis of teachers' reports and supplemented with parents' reports (an approach used in other studies). This group was identified on the basis of responses of teachers and parents on the Strengths and Difficulties Questionnaire (SDQ), using the 'borderline' and 'abnormal' cutpoints on these scales. Therefore, many children in this group would not have been formally identified as having SEBD.

Children with general learning disabilities and difficulties (GLD) (group 4) comprised 407 or 4.8 per cent of all children. A prevalence rate of around 5 per cent for this group is higher than might be expected on the basis of other prevalence estimates for GLD (NCSE, 2006a). However, GUI did not include questions that asked specifically about a general learning disability, so this had to be inferred from the available data. Therefore, the estimate of 4.8 per cent is likely to include some children with milder learning difficulties who have not been diagnosed with either a general or specific learning disability and for this reason our use of the term 'GLD' includes difficulty as well as disability.

The number of children with GLD was based initially on teachers' responses to a question asking them to indicate whether or not the child had a learning disability and / or whether parents indicated that the child had been diagnosed with a difficulty or disability that caused them difficulty in making progress in school. In all, 971 children (just over 11 per cent) were identified as having a learning difficulty on this basis. Just over half (564) of these children were also identified as having a specific learning difficulty (dyslexia, speech and language disorder, and / or other specific learning disability), so were omitted from this group in order to isolate the 407 children with a general (as opposed to a specific) learning disability or difficulty[2]. It is not possible to differentiate children with mild, moderate and severe general learning disabilities within the GLD group (who are currently supported by the NCSE as per Department of Education and Skills resource allocation categories or the DES General Allocation Model for primary schools); or indeed children with learning difficulties who would be supported by learning support teachers under current resource allocations arrangements. The range of these children's needs and outcomes is likely therefore to be quite broad.

The number of **children with autism / autistic spectrum disorders or Asperger's syndrome (ASD) (group 5)** was based on parents' reports of diagnoses of these conditions. In total, 69 children or just under 1 per cent of the sample were identified as having ASD.

Children with a **specific learning disability (dyslexia) (group 6)**, **speech and language disorders (group 7)**, and **another specific learning disability (unspecified; group 8)** were identified on the basis of parents' reports of diagnoses of these conditions. About 4 per cent of children fall into each of these three groups (361 or 4.2 per cent with dyslexia, 3.7 per cent or 317 with a speech and language disorder, and 3.9 per cent or 332 with another specific learning disability[3]).

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[1] Under the current DES resource allocation the acronym SEBD means severe emotional behavioural disorder, which is not the same as social, emotional or behavioural difficulties used here. However it's worth noting that social emotional and behavioural difficulties is a term used by DES / NEPS in the continuum of support guidelines.

[2] It is possible, of course, that general and specific learning difficulties or disabilities can coexist, but in the absence of more detailed information, this was felt to be the most sensible approach.

[3] There are 1,060 children with dyslexia, SLD, and / or another specific learning disability. The figure of 564 mentioned under the description of GLD forms a subset of this 1060.

On the basis of the eight categories identified initially, we found that 70 per cent of children had one of these special educational needs and 30 per cent had multiple SEN. A final classification of 12 categories of SEN was established for the present study since many children had more than one special educational need. This classification was arrived at following an analysis of how each of the eight SEN groups described above occurred singly and in combination, and yields an estimated prevalence of 27.8 per cent.

The 12 groups are listed below together with the numbers and percentages of children in each category:

- Medium risk SEBD (social, emotional or behavioural difficulties) only 619 or 7.2 per cent of all children
- High risk SEBD only 371 children, 4.3 per cent
- GLD only: 246 children, 2.9 per cent;
- GLD with medium or high risk SEBD: 125 children, 1.5 per cent
- Dyslexia only 187 children, 2.2 per cent
- Dyslexia with medium or high risk SEBD, 100 children, 1.2 per cent
- Speech and language disorder (SLD) only 101 children, 1.2 per cent
- SLD with medium or high risk SEBD 91 children, 1.1 per cent
- Autistic spectrum disorder or Asperger's syndrome (ASD) 69 children, 0.8 per cent
- Physical or sensory disability only 68 children, 0.8 per cent
- Physical or sensory disability with medium or high risk SEBD and / or other general or specific special educational needs(s), 158 children, 1.8 per cent
- Other special educational need(s), 246 children, 2.9 per cent
- No special educational need(s), 6,187 children, 72.2 per cent.

The prevalence of SEN on the basis of this analysis (27.8 per cent) is similar to a prevalence rate of 25 per cent reported previously, also on the basis of the GUI nine-year-old data (Banks & McCoy, 2011). The children classified in the 'other SEN' group represent a broad range of needs and conditions, that is unspecified specific learning disabilities with and without SEBD, as well as other combinations of physical, general and specific difficulties or disabilities. These are children whose special educational needs profiles did not readily 'fit' under the other 11 groups.

Methodology and Findings

The research was carried out under five interrelated strands, described below.

Literature review

National and international research and policy was reviewed and is summarised in this report under eight key headings:

- Measurement of outcomes of children with special educational needs; Prevalence estimates for SEN;
- Disproportionality (over-representation of certain characteristics) in the special educational needs population;
- Examples of large-scale survey datasets that permit an examination of SEN;
- Previous research on outcomes of children with special educational needs;
- Previous qualitative research on children with special educational needs;
- Provision of support for SEN in Ireland;
- Issues and gaps in existing research on children's outcomes.

Analyses of outcomes of children

Method

The following outcomes of children in the 12 SEN groups were compared to each other and to those of children without special educational needs:

- **Engagement and attendance:** children's liking of school and school subjects; numbers of days of school missed over the past school year.
- **Attainment / achievement:** Drumcondra reading and mathematics test scores; parents' and teachers' ratings of children's performance in various skill and subject areas; parents' educational expectations for their child.
- **Happiness / well-being:** Piers-Harris self-concept scale and subscales, which measure happiness and well-being (Piers & Herzberg, 2007); levels of physical activity; bullying; number of close friends; socialising with friends.
- **Independence:** this set of outcomes is more relevant to older children and adults, though three are included – child's level of dependence on his or her caregiver(s) (reported by parents; Pianta, 1992); child-reported participation in self-care tasks (e.g. washing); and child-reported participation in household tasks (e.g. helping with housework).

A fifth area discussed by Douglas *et al* (2012), **progress over time**, was not examined, since this would require longitudinal information. However, progress could be examined by comparing the Wave I GUI data (collected when children were aged nine) with Wave II data (collected when children were 13 and released in June 2014).

Reading and mathematics test scores

An analysis of children's reading and mathematics scores on the Drumcondra test showed that, generally, children with special educational needs achieved lower scores in reading and mathematics than children without. However, achievement scores varied widely across the 12 SEN groups. Children with SEBD with GLD, with SLD, and with dyslexia and SEBD had considerably lower mean scores than children without special educational needs. In contrast, children with a physical or sensory disability and with ASD had mean reading scores that were not significantly different from those of children without special educational needs. Also, a substantial minority of children with high risk SEBD (8 per cent), and with ASD (12 per cent), may be described as high achievers in reading and, to a lesser degree, mathematics (where 4 per cent of children in each of these groups achieved high scores).

Teachers' and parents' ratings of children's proficiency

An analysis of teachers' ratings of children's proficiency in various skill and subject areas (rating them as 'above average', 'average', or 'below average') showed that children with special educational needs were more likely than those without to be rated as 'below average', and less likely to be rated as 'above average', on all aspects of their academic performance.

Comparing children's reading and mathematics test scores with teachers' ratings, it was found that the reading proficiency of 8 per cent of children with special educational needs was 'underestimated' by teachers when compared with their actual test scores for reading, compared with just 4 per cent of children without special educational needs. Comparable percentages for mathematics are 10 per cent (children with special educational needs) and 5 per cent (children without).

Analyses of parents' ratings of children's reading and mathematics proficiency (also rating them as 'above average', 'average', or 'below average') showed that most parents tended to judge their children (whether with special educational needs or not) as being 'average' or 'above average', with few (around one in 10) rating their children as 'below average'.

Consistent with teachers, a comparison of parents' ratings with children's test scores showed parents of children with special educational needs tended to provide lower estimates of their proficiencies than parents of children without special educational needs in both reading and mathematics. Specifically, the reading proficiency of 5 per cent of children with special educational needs was 'underestimated' by parents when compared with their actual test scores for reading, compared with just 2 per cent of children without. Comparable percentages for mathematics are 5.4 per cent (children with special educational needs) and 2.6 per cent (children without). Regardless of whether or not children had special educational needs, however, parents 'overestimated' their children's reading and mathematics abilities in about a third of cases.

Parental educational expectations

There were large variations across the 12 SEN groups in the levels of educational expectations parents have for their children. About 78 per cent of parents of children without special educational needs expected them to attain a third-level degree. This figure is just 53 per cent for parents of children with special educational needs, and was particularly low (32-42 per cent) among parents of children with SLD with SEBD, dyslexia with SEBD, GLD with SEBD, ASD, and physical or sensory disability with SEBD and / or other SEN.

Engagement and attendance

A comparison of children's liking of school and school subjects (on a scale that summarised their responses to liking school, reading and mathematics) showed that on average, children with special educational needs liked school less than those without: while about one in eight children with special educational needs had a low liking of school and school subjects, about one in 12 children without such needs indicated a low liking.

There were also differences among children in the 12 SEN groups in their liking of school and school subjects. Liking was relatively high among children with SLD, and with SLD and SEBD. It was comparatively low among children with dyslexia and SEBD, with ASD, with physical disabilities and SEBD and / or other SEN, and children with another special educational need.

Analyses of the numbers of days missed over the past school year indicated that overall attendance rates were lower among children with special educational needs compared to children without: while about 22 per cent of children with special educational needs missed two or more weeks of school in the past year, 16 per cent of children without special educational needs did so. Low attendance was particularly marked among children with dyslexia with SEBD.

Happiness and well-being

The scores of the 12 SEN groups on the Piers-Harris overall scale, an indicator of general happiness and well-being, were compared. The Piers-Harris measure comprises six subscales measuring freedom from anxiety, happiness and satisfaction, physical appearance and attributes, behavioural adjustment, intellectual and school status, and popularity.

Compared to children without special educational needs, those with had lower scores (by around two-fifths to half a standard deviation) on all Piers-Harris measures, with the exception of the physical appearance and attributes subscale, for which the differences were smaller.

Some of the 12 SEN groups had low scores on most or all of these seven measures, relative to the group of children without special educational needs. These were children with SEBD, GLD both with and without SEBD, dyslexia with SEBD, and SLD with SEBD. This suggests that SEBD, whether experienced on its own or with other SEN, is having a significant negative impact on children's happiness and well-being.

Being bullied

Both children's and parents' reports of being bullied were analysed, as well as the perceived impact of bullying as described by children. However, in interpreting results, it is important to note that milder forms of bullying are combined with more serious ones in these reports. Results showed that children with special educational needs reported being bullied more frequently (47 per cent) than children without such needs (36 per cent). Reports by parents of their child being bullied were also more frequent for children with special educational needs (36 per cent) than those without (19 per cent).

Relatively high incidences of being bullied were reported by children with high risk SEBD, dyslexia with SEBD, and ASD. Parent-reported incidences were also high for children with dyslexia with SEBD and ASD, but not children with high risk SEBD.

The perceived impact of being bullied, as reported by the children themselves (that is, how upset they felt as a result), was more negative among children with special educational needs than those without. Comparatively high rates of negative impact were found in children with medium and high risk SEBD, and dyslexia with SEBD.

Socialising and friends

Among children with special educational needs, there were variations across the 12 groups in the frequency of socialising with peers: low rates were evident among children with ASD, SLD with SEBD, and physical or sensory disability with SEBD and / or other SEN. Children with special educational needs also tended to have fewer close friends than their counterparts without. Children with SLD and SEBD, a physical or sensory disability with SEBD and / or other SEN, and particularly ASD, had far fewer close friends than children in the other groups.

Independence

On the basis of parents' reports of children's dependence on them, close to twice as many children with special educational needs (29.5 per cent) were classified as having low independence than children without such needs (16.4 per cent). Low levels of independence were particularly prevalent (50 per cent) among children with SLD and SEBD, and with ASD. Children with ASD also showed low levels of participation in self-care tasks and day-to-day household tasks compared with other children, both with and without special educational needs.

Analyses of background characteristics of children

Method

Using a methodology similar to the analyses of outcomes described in the previous section, comparisons between the 12 SEN groups and the non-SEN group were made of five sets of background characteristics:

- Individual and family demographic characteristics;
- Individual and family socioeconomic features;
- Supports received by children;

- School and community environments;
- Classroom environments.

Demographic characteristics

About 59 per cent of children with special educational needs were boys, and 41 per cent were girls. However, there were variations across the 12 SEN groups. For example, about one in three or fewer children with ASD, high risk SEBD, and SLD were girls, while about half of children with dyslexia, GLD, and a physical or sensory disability with SEBD and / or other SEN were girls.

Family size, country of birth and language spoken at home did not vary much by SEN group, or between children with and without special educational needs. However, children with special educational needs, particularly children with SLD and SEBD, were more likely to live in one-parent families (many of these comparatively socioeconomically disadvantaged) than children without special educational needs.

Socioeconomic characteristics

Four measures of socioeconomic background were examined: socioeconomic index (SEI) scores, percentage of household income from social welfare, parental educational attainment, and parents' perceived level of financial stress. Results showed that while children with special educational needs generally live in more challenging socioeconomic environments than children without, some groups may be particularly disadvantaged in this regard.

Children with special educational needs came from families with lower SEI scores than those without, indicating higher socioeconomic disadvantage. Social welfare (SW) dependency was also higher among families of children with special educational needs than families of those without (27 per cent versus 16 per cent of household income from social welfare).

Groups with the lowest SEI scores and the highest social welfare values, and hence the most socioeconomically disadvantaged on these measures, were children with high risk SEBD, GLD, GLD with SEBD, SLD with SEBD, and a physical or sensory disability with SEBD and / or other SEN. Two of these groups of children – GLD with SEBD and SLD with SEBD – also had particularly low levels of parental education.

Levels of financial stress were higher in general in families of children with special educational needs compared to families of those without. While 6 per cent of the latter had parents reporting significant financial difficulties, this figure was 13 per cent for children with special educational needs, and was very high – 38 per cent – among families of children with dyslexia and SEBD.

Supports received by children

Teachers were asked whether or not children were in receipt of speech and language therapy, a psychological assessment, behaviour management support or programme, support from learning support or resource teacher (LS / RT), and / or any other supports. The data cannot tell us if the supports children receive are adequate or appropriate. Of children with special educational needs, 40 per cent had one or more of these supports at the time of the study. A large majority (36 per cent) had LS / RT support, while 9 per cent had received a psychological assessment and fewer than 3 per cent had any of the other supports.

There were quite wide variations in the way supports were distributed across children with special educational needs. For example, over 90 per cent of children with GLD and GLD with SEBD received support, and 63-66 per cent of children with dyslexia and SEBD, and with SLD with SEBD, received supports. In contrast 8 per cent of children with medium risk SEBD, and 25 per cent with high-risk SEBD, received support.

The GUI dataset does not include information on whether children were in special classes in 'ordinary' schools. However, just 0.5 per cent of children with special educational needs (that is, 41 children) were in special schools at the time of the study. Children most likely to be in special schools were those with ASD (21 per cent of all children with ASD), physical or sensory disability with SEBD and / or other SEN (11 per cent), and with SLD and SEBD (8 per cent).

Characteristics of children's schools and communities

Across all children, 8.4 per cent were enrolled in DEIS[4] Band 1 schools, 6 per cent in DEIS Band 2 schools, 4 per cent in Rural DEIS schools, and 81.4 per cent in non-DEIS schools. While similar percentages of children with and without special educational needs were in Rural DEIS schools, more children with special educational needs than without were in DEIS Band 1 schools (12 per cent compared to 7 per cent) and DEIS Band 2 schools (7.4 per cent compared to 5.4 per cent). The distribution of children in the 12 SEN groups varied across DEIS / non-DEIS schools. For example, 21 per cent of children with high risk SEBD were in DEIS Band 1 schools, compared to just under 2 per cent of children with dyslexia, and while 12 per cent of children with SLD and SEBD were in Rural DEIS schools, no children with ASD were in these schools.

As might be expected, DEIS status was related to community resourcing and community safety: children in Rural DEIS schools tended to live in the less well-resourced, but safer, communities, while children in DEIS Band 1 schools were more frequently in better-resourced, but more unsafe, communities.

An issue of policy relevance is the extent to which children with special educational needs are clustered in schools with particular characteristics. However, the GUI sample was not designed to examine clustering in any great depth.

Principals reported on the prevalence of literacy problems, numeracy problems, and SEBD in their schools. Comparing children with and without special educational needs, it was found that the former were more likely to be enrolled in schools with a higher prevalence of these difficulties. Prevalence rates of these difficulties were particularly high among children with ASD (though they were more likely than others to be enrolled in special schools).

Principals also provided estimates of the percentages of children in their schools with physical disabilities and learning disabilities. Children in three of the 12 SEN groups (SLD with SEBD, ASD, and physical or sensory disability with SEBD and / or other SEN), were more likely to be enrolled in schools with a higher prevalence of these disabilities compared to the no-SEN group indicating some degree of clustering of children with disabilities.

Characteristics of children's classroom environments

These analyses also looked at clustering, this time within classrooms. There is evidence for clustering of pupils into particular classrooms. For example, while the prevalence rate of learning disabilities was 8.6 per cent in the classrooms of children without special educational needs, it was 13 per cent for those with such needs.

Children with GLD, GLD with SEBD, dyslexia, dyslexia with SEBD, ASD, physical or sensory disability with SEBD and / or other SEN, and other SEN were more likely to be in classrooms with higher percentages of pupils with learning disabilities. Also, children with medium and high risk SEBD, dyslexia and SEBD, ASD, physical or sensory disability with SEBD and / or other SEN, and other SEN were more likely to be in classrooms with higher percentages of pupils with emotional or behavioural difficulties. These findings confirm that children

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[4] This is a school classification scheme based on levels of socioeconomic disadvantage. DEIS Band 1 and Band 2 schools are located in urban areas, with higher levels of disadvantage in DEIS Band 1, while rural DEIS schools are in rural communities.

with special educational needs tend to cluster in certain classrooms; however, the data cannot tell us if these patterns of clustering are suited to the needs of these children. It is unclear at this point if the Wave II data can provide more in-depth information on clustering.

Analyses of children's outcomes in context

Method

Multiple linear regression modelling[5] was used to compare differences across children in the 12 SEN groups with children without special educational needs on nine outcomes, before and after accounting for demographic, socioeconomic, school, class and community characteristics. The nine outcomes selected were:

1. Reading achievement;
2. Mathematics achievement;
3. Parental educational expectations;
4. Liking of school and school subjects;
5. Number of days absent over the past school year;
6. Experiencing bullying;
7. Piers-Harris freedom from anxiety subscale scores;
8. Piers-Harris happiness subscale scores;
9. Level of participation in daily self-care activities.

A short summary of key findings is presented under five headings: reading and mathematics achievement; parental educational expectations; engagement and attendance; well-being; and independence.

Reading and mathematics achievement

SEN status alone accounted for 17 per cent of the variation in reading achievement scores, and 13 per cent of the variation in mathematics achievement scores[6]. Accounting for children's demographic, socioeconomic and home environments explained an additional 10 per cent of the variation in their reading scores and 6 per cent in their mathematics scores. Characteristics relating to the classroom environments, schools and community explained little, if any, additional variation in the reading and mathematics scores of children with special educational needs.

Some specific findings are of note. First, the achievement scores of children with a physical or sensory disability did not differ from the scores of those without in any of the models of reading and mathematics achievement. This means that they are doing just as well as children without special educational needs, regardless of home, school and community characteristics.

Second, the reading scores of children with high risk SEBD did not differ significantly from those of children without special educational needs once account was taken of their demographic, socioeconomic and home background characteristics. This suggests that supports that take children's broader contexts into account may be appropriate for them.

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[5] Multilevel modelling was not used since the sample was not designed to provide representative school- or classroom-level results, and also because children are differentially clustered across schools and in small numbers in some cases.

[6] It is usual in social and educational research for most of the variation in outcomes to remain unexplained in these kinds of analyses.

Third, the mean reading score of children with ASD was the same as those without special educational needs before accounting for background characteristics, yet was significantly lower than would be expected once account was taken of their background characteristics, and in particular, school and classroom characteristics. This suggests that the school and classroom environments of these children may not be optimal for their academic performance. It will be recalled that about one in five children with ASD were in special schools.

Parental educational expectations

After accounting for home, school and community characteristics, all SEN groups (except children with physical or sensory disabilities) were significantly less likely to have parents expecting them to obtain a third level degree. Children with the lowest adjusted parental educational expectations were those with GLD and SEBD, dyslexia and SEBD, and ASD.

Overall, findings indicate that low parental educational expectations is an issue of general concern, and potentially suited to a global policy intervention that is aimed at informing parents and children of the full range of educational opportunities, whether traditionally 'academic' or not, and increasing parental educational expectations for all children with special educational needs.

Engagement and attendance

In models of liking of school and school subjects, children with GLD and SEBD, dyslexia, dyslexia and SEBD, and other SEN were 2.5 to four times more likely to have a low liking of school / school subjects, relative to their no-special educational needs peers. These differences remained statistically significant after accounting for individual, school and community characteristics. Children with dyslexia and SEBD were also significantly more likely to miss days from school, after accounting for individual, school and community characteristics.

These findings point to the need to improve engagement of children with special educational needs in their education in general, and in particular, children with dyslexia and SEBD.

Well-being

Models of child reports of being bullied showed that after adjusting for individual, school and community characteristics, being bullied remained significantly more likely among children with medium and high risk SEBD, dyslexia with SEBD, and physical or sensory disability with SEBD and / or other SEN. The results suggest the need to better understand both bullying behaviours of children with special educational needs or of others towards them, particularly where SEBD is featured.

Models examining differences in children's Piers-Harris freedom from anxiety and happiness scores showed the well-being of some groups of children is not strongly associated with their individual, school or community characteristics, and remained significantly lower in some groups of children with special educational needs relative to children without, that is children with medium and high risk SEBD, GLD with SEBD, dyslexia with SEBD, SLD with SEBD, and other SEN. The prominence of SEBD among children with low scores on these measures is striking and indicates a need to address their well-being, perhaps in conjunction with being bullied.

Independence

The analyses of children's level of participation in self-care tasks showed that children with ASD were significantly less likely than children in any of the other SEN groups to participate in self-care tasks, both before and after accounting for home, school and community characteristics. Although children were only nine at the time of gathering this information, this finding does raise concerns for the future independent functioning of children with ASD.

Themes emerging from analyses of qualitative data

Method

The qualitative analyses initially identified 31 sets of interviews for more in-depth thematic analysis. Of these, six children had a sibling with special educational needs. Qualitative results were organised into codes and then into themes emerging across the interviews using manual coding and NVivo software.

These 31 children were organised into three groups. Group 1 consisted of children with a confirmed special educational need, Group 2 comprised those with a possible or likely special educational need, and Group 3 consisted of children with siblings with special educational needs. The individual characteristics of the children in these groups varied widely. Nonetheless, it was possible to identify three overarching themes that cut across all three groups. These are summarised below.

Overarching Theme 1: School and educational context

Children's perceptions of school as difficult or boring were reasonably common, though they valued and enjoyed the social aspects of school. Some children's negative perceptions may have been based on a dislike of certain subjects in which they encountered difficulties. Several children specifically mentioned tests as a source of worry and some had concerns that school would be difficult in the future. Some parents suggested that the structured environment of the classroom did not suit their children, and some indicated that non-academic strengths were not valued within the education system in the same way as the parents valued them; this in turn, they felt, could give rise to difficulties such as disengagement or acting out.

Some parents who discussed the assessment and diagnosis of their child indicated that delays in the assessment process may have had a negative impact on their child. Other parents, however, were quite positive about improvements in their children following support, and tended to emphasise non-academic changes (such as an increase in confidence) rather than academic progress.

Parents commonly described their children in holistic and pragmatic terms, showing awareness of their child's strong and weak points, both academic and non-academic.

Overarching Theme 2: Child well-being

The children we included in our qualitative analyses can be described as reasonably happy and well. Friendships formed a major part of these children's lives, although some had few friends, or saw their friends rarely. Reasons for this varied.

The descriptions of bullying in the interviews can be regarded as problematic. There is evidence that some children did not discuss bullying incidents during their interview while their parents did describe them, some of them as upsetting for their children. Also, a small number of interviews indicate that what parents perceive to be part of normal interaction may be perceived as bullying by the child. On a positive note, a consistent theme to emerge was the willingness of children to talk to parents about worries or concerns, including bullying.

Overarching Theme 3: Home environment

A strong theme to emerge was that regardless of individual family circumstances, parents frequently spoke about making sacrifices and establishing priorities in order to put their child's well-being first.

There were differences between how the children interacted with their mothers and fathers. Children living in one-parent families varied in their level of closeness to the non-resident parent. Differences between siblings were commonly observed by parents and this played out in differences in parenting styles. There is also evidence of negative impact in terms of time spent with children when a sibling of the study child had special educational needs and / or difficulties in his or her relationship with the parents.

Various stresses and ways that parents dealt with these emerged reasonably frequently in the interviews. Parents were generally aware of the need to minimise the impact of these stresses on their children. A small number indicated that their child's special educational need was a cause of stress, but their interviews indicate a degree of pragmatism and adaptability to the challenges that this brought.

Study Limitations

Some limitations of the study mean that while that while many aims have been achieved, others still have yet to be addressed. Also, of the aims achieved, some have been addressed more completely than others. Seven limitations are described below.

1. The GUI nine-year-old dataset, although part of a longitudinal study (with a second wave of data collected when children were aged 13), is in and of itself cross-sectional. This means we have not been able to examine any aspect of children's progress over time.
2. The classification of children with special educational needs, although felt to be the best possible on the basis of the data, is problematic. This is because GUI was not specifically designed to permit a detailed classification of SEN. Questions on SEN for teachers and parents were not consistent with one another. Gaps exist in the classification in that SEBD and GLD were not asked about directly and therefore needed to be inferred from the available data. The classification of children with multiple special educational needs is also complex, not just on the basis of the GUI data, but arguably on the basis of any data.
3. While GUI gathered some information on supports received by children with special educational needs, it did not gather information on the views of teachers or parents on whether their children were being adequately supported in their education. Therefore, resource allocation and support is an area we are not in a position to consider in any detail. The NCSE is examining it in depth and has recently published a working group report that proposes a new model for allocating teaching resources to children with special educational needs (NCSE, 2014).
4. The sample design and response rates for the nine-year-old GUI participants also limited the type and level of inferences that can be made. Response rates, at 57 per cent, though acceptable by survey standards in general, are a little low, and while the sampling weights can account for much of the bias arising from non-response, they may not account for all of it. The sample was designed to provide representative estimates for the population of nine-year-old children in Ireland, but not schools or classrooms. This means that while analyses of school and classroom characteristics are certainly possible (and have been included in this report), they are not necessarily generalisable to the population of schools / classrooms in the country. Some potentially useful information was not included in the GUI sample design. For example, we do not know if children were in special classes in 'ordinary' schools at the time of the study.
5. While the qualitative data provide a more detailed and subtle context for helping us to understand some of the quantitative findings, there is no direct link between the qualitative and quantitative datasets. So while children with special educational needs have been identified in the parent interviews, we cannot cross-validate this with the SEN classification arrived at on the basis of the quantitative data.
6. The numbers of children in some of the SEN groups are too small to allow us to comment on specific SEN to the extent that we might have liked.

7. Finally, the experiences and outcomes of gifted children were not included in this study's specifications, so we are not placed to comment on this aspect of SEN, but mention it as an area in need of study at a future date.

Recommendations

The study resulted in 17 recommendations grouped under seven themes.

1. Assessment and progress

i. It is recommended that efforts are continued and renewed to implement individualised educational plans, and to monitor the progress of children with special educational needs on the basis of these plans. In doing so, staff working with these children are likely to require additional tools, training and support.

ii. It is recommended that specific assessment tools for children with special educational needs be developed for use in primary school settings in Ireland. The tools should be capable of being tailored to specific SEN, be easy for teachers to administer and to score, be suitable for multiple administrations to monitor progress, and be accompanied by guidelines for using results to inform both parents and the learning plans for individual children.

iii. It is recommended that a programme of professional development be implemented to support the use of any assessment tools designed to measure the educational outcomes and progress of children with special educational needs. The programme should include the use of assessment results for teaching and learning, as well as for communicating with parents.

iv. It is recommended that the differences in teachers' ratings of children's proficiencies and their test scores are examined in future research, since both sources of information are valid. The research could include discussions with teachers on why they rate children in a particular way, since assessment instruments may have limitations that teachers' observations may overcome or supplement.

2. Social, emotional and behavioural difficulties

v. It is recommended that an instrument be developed for use by teachers to identify SEBD (social, emotional and behavioural difficulties). The instrument should be capable of distinguishing between moderate and more severe forms, as well as internalising and externalising forms, since these may imply different types of supports.

vi. Children with 'borderline' scores on any instrument used to assess SEBD should be re-assessed at regular intervals to ensure their needs are being met within their current learning environments.

vii. Any identification of SEBD by teaching staff needs to be accompanied by appropriate allocations of educational and psychological resources and supports and strategies for fostering effective communication with parents, as well as raising awareness among parents and providing supports to families.

3. Clustering of children with special educational needs in schools and classrooms

viii. It is recommended that the extent to which children with special educational needs are clustered in particular schools be examined further, using data gathered specifically to address this issue, in order to determine how a 'critical mass' of these children in a school may be appropriately supported through the allocation of additional resources at the level of the school.

4. Children’s engagement and parents’ educational expectations

ix. It is recommended that simple and practical information on future education and training opportunities be promoted among parents, teachers, and schools, specifically targeted at adolescents and young adults with special educational needs.

x. It is recommended that efforts are increased to engage children with special educational needs by building capacity in schools to address the needs, academic and otherwise, of the diverse cohort of children with special educational needs, within an inclusive education framework.

xi. It is recommended that Wave II of the GUI data be examined with respect to the process of disengagement, in particular how and why this may differ across SEN groups, in order to support engagement to the greatest extent possible, from early in children’s education and also when they transition to post-primary school.

5. Variation in strengths and needs of children with special educational needs

xii. It is recommended that the characteristics and needs of certain sub-groups be examined further in follow-up research, specifically

- Those of children with SEBD, both identified in isolation and in co-occurrence with other SEN; in particular, their well-being and home environments;
- Children with multiple special educational needs; in particular, the children with SEBD and other SEN, and with physical or sensory disabilities and other SEN;
- Children with ASD; in particular, their allocation to specific classrooms and schools.

6. Children’s experience of bullying

xiii. It is recommended that teachers and school management engage in professional development in the area of bullying, in particular identification of bullying that results in less visible internalising behaviours, as part of a holistic approach to behaviour management and promoting a positive classroom and school environment.

xiv. It is recommended the provision of support courses for parents that provide guidelines on identifying behaviours, both internalising and externalising, that may be symptomatic of bullying, and ways to talk to their child about these.

xv. It is recommended that Wave II data be used to research bullying further, with retrospective reference to the experiences of children at age nine, to cyber-bullying, and to both perpetration and victimisation.

7. Home and family environment

xvi. It is recommended that early identification of SEBD is prioritised within an overall framework of supports for SEN that takes community, family, school and individual children’s characteristics into account.

xvii. It is recommended that further research is done to identify and measure those characteristics for groups of children who may be most at risk of developing special educational needs, particularly those involving SEBD, at an early stage of their development.

1. Introduction

1.1 Overview and aims of the study

In January 2013, the NCSE issued a call for tender entitled A Secondary Analysis of Growing Up In Ireland Data on Educational Experiences and Outcomes for Children with Special Educational Needs. A research team in the Educational Research Centre (ERC) and the Special Education Department in St Patrick's College were tasked with this analysis in April 2013.

In its call for tender, the NCSE noted that despite significant investment to support children with special educational needs over the past decade, only limited evidence relates to the engagement, progress and outcomes of these pupils. It further noted that a report published by the NCSE (Douglas *et al*, 2012) made recommendations one of which focused on the need for further empirical research on pupil outcomes in the Irish context. This perceived need forms the key objective of the current report.

The aims of this study are to provide new evidence to help us understand more clearly how children with special educational needs, and specific identifiable subgroups within this cohort if possible, are faring at school in terms of:

- Outcomes which relate to academic attainment or achievement and expectations in relation to same.
- Participation in and engagement with school and learning, and their learning progress and expectations in relation to same.
- Independence skills, self-esteem, well-being at school and relationships with teachers and peers.

Two further goals were to identify and analyse the factors associated with these experiences and both formal and less formal educational outcomes, and to identify potential implications for educational policy and / or practice arising from the analysis.

1.2 Conceptual framework

The conceptual framework adopted for this study is similar to that used to inform the Growing Up in Ireland study. It is informed by Bronfenbrenner's (1979) model of child development. This model locates the child within his or her environment in terms of a multi-layered nested set of interconnected environmental systems which influence child development. These comprise the microsystem or the influences closest to the child, including parents and teachers; the mesosystem which includes how families interact with schools; the exosystem which includes national structures and systems; and the macrosystem which includes culture-specific ideologies, attitudes and beliefs, as well as economic and political systems. The notion of time is central to Bronfenbrenner's model; in particular, the role of the historical socio-cultural context in a time period as a key influence on development.

In relation to SEN, the study is informed by the bio-psycho-social model (Norwich, 1993). In this model, disability may or may not result in SEN, depending on interactions between and within child, social and environmental factors.

Both models indicate a need to consider factors within the social and environmental arena of the school and home and how they influence a wide range of outcomes for children.

1.3 Review of previous studies on educational outcomes and experiences of children with special educational needs

This chapter provides an overview of existing literature and research in the area to provide a context for interpreting the results in Chapters 3 to 6. The material is organised into five main sections:

- Measurement of outcomes of children with special educational needs
- Prevalence estimates for SEN
- Disproportionality in SEN
- Examples of large-scale survey datasets that permit an examination of SEN
- Previous research on outcomes of children with special educational needs
- Previous qualitative research on children with special educational needs.

We then consider a further three areas:

- Provision of support for SEN in Ireland
- Issues and gaps in existing research on children's outcomes
- How data from GUI can inform the aims of the present study.

1.3.1 Measuring outcomes for children with special educational needs

Investment and commitment have increased in Ireland to support children with special educational needs since 1998. In terms of resource allocation, substantial progress has been made, albeit from a low base. However, little evidence exists as to the educational engagement, progress or outcomes of these pupils. The NCSE Implementation Report (2006a) argues that in the Irish educational system there is 'no structured emphasis on outcomes and an almost endemic fascination with inputs, with no means of ascertaining what outcomes are being achieved for children with special educational needs' (p17).

According to Douglas *et al* (2012), outcome measures relating to children with special educational needs can be usefully grouped into the following areas[7]:

- Engagement measures
- Attainment-related outcomes
- Attendance-related outcomes
- Happiness-related outcomes
- Independence-related outcomes
- Progress.

In relation to engagement, this includes behavioural, emotional and cognitive measures related to equal participation in education. Following an analysis of the literature, Douglas *et al* (2012) found that attainment most frequently referred to reading literacy and mathematics achievement scores. It also included data on state examination results such as the UK's GCSE, and achievement levels for particular subgroups of children with special educational needs. Attendance-related data refer to the levels of absenteeism, suspensions, expulsions, exit type and school dropout statistics. Happiness-related data cover a wide range of outcomes, referring to social, emotional, and behavioural measures, and indicators of self-esteem, temperament, well-being, motivation, loneliness, parental relationships, victimisation, activities, friendships, optimism, experience of bullying, and positive relationships. Independence-related outcomes relate mostly to post-school outcomes

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[7] Note, though, that the inter-relationships between these outcomes are not considered.

such as transition, employment, education, training, leisure, social life, living with family or not and holding a driving licence. Progress was defined as positive change or improvement along the above measures and was captured mostly through longitudinal studies or through tracking systems related to national databases (Douglas *et al* 2012). For the purposes of the present study, our examination of children's outcomes is based on this framework. The analysis framework used in this report is described in more detail in Chapter 2.

Different countries assess and collate young people's educational engagement, progress and outcomes in different ways. Douglas *et al* (2012) discuss the collection and collation of this information at system level across various countries. First, it can be collected through national/state records which are routinely collected for accountability and resource allocation purposes, and contain student details on SEN. In some systems these are linked to a national pupil database which allows disaggregation of the results for children with special educational needs. These can contain information from both award bearing and non-award bearing assessments. Second, there are national surveys or censuses some of which sample the general student population while others are particularly concerned with participants with special educational needs. Third, international assessments include children with special educational needs, and a fourth source comes from research studies focused on particular groups of these children.

The capacity to use the information from these sources is closely tied to how well the assessments are designed to capture the characteristics and outcomes of children with special educational needs, using disability specific, accommodated and alternative modes where appropriate. It is also related to whether records are compiled separately for this cohort or linked to a database which allows disaggregation of the information for different groups of these children. In Section 1.2.6, we identify issues and gaps in the measurement of their outcomes, and although the present study cannot hope to address these, it attempts to shed some additional insights on these children and provide specific directions for future research and policy.

1.3.2 Prevalence estimates for children with special educational needs

A number of data sources permit prevalence of children with special educational needs to be estimated. However, they vary depending on whether the data is collected for administration and resource allocation (that is, on the basis of formally identified SEN), or from censuses or sample-based surveys (which may not distinguish between SEN in the same way as administrative data would, and which may define them quite differently).

Banks and McCoy (2011) outline a range of sources and difficulties attached to each in terms of estimating prevalence rates for SEN in Ireland. This is a complex and problematic issue internationally, complicated by the different types of diagnostic criteria used, differences in definitions, the use of qualitative and fluid categorisation of behaviour by observation and teacher and parent reports influenced by differing contexts.

The National Council for Special Education (NCSE) has developed a Special Education Administrative System (SEAS) which contains details on the number of pupils receiving resource teaching hours and / or having access to a special needs assistant (SNA) by SEN or disability status across all primary, post-primary and special schools. However, at primary and from 2012 at post-primary level this information relates to pupils with low incidence special educational needs only (NCSE, 2013).

The Department of Education and Skills collects data from primary schools on children receiving support under the general allocation model (GAM) where each school gets an additional quota of teaching resources to address the needs of pupils with high incidence special educational or learning support needs. It also collects data on pupils in special classes and schools.

Banks and McCoy (2011), using the above sources and urging caution, estimate that 17 per cent of children are receiving support under the GAM; that 4 per cent receive resource hours at primary and post-primary levels; that 0.6 per cent are in special classes attached to mainstream schools and 1.4 per cent are in special schools.

In Ireland, there has been criticism of the system of identification and resource allocation process. Recent NCSE (2013) policy advice highlights the following issues:

- Difficulties with the GAM resources being allocated on the number of class teachers employed rather than the profile of students enrolled.
- The need for students to receive a professional diagnosis of disability to access resource hours, in the context of inequitable access to assessments.
- The linking of resources to a disability category rather than the level of student need.
- The allocations to post-primary schools being made on the basis of historical data.

Internationally, prevalence estimates vary widely across countries and are often tied to systems in place for identification and support for children with special educational needs. It must also be noted that having a SEN does not necessarily mean that additional resources are required to address the need. The OECD's (2007) concern about the educational utility of descriptive categories, particularly those that are medically-based, is noteworthy in this context:

> Disability categories are viewed as having only partial implications for educational provision or for the development of teaching programmes, which inevitably have to take the whole child into account. In this way, therefore, categories based on medical descriptions are at best of only limited value to education policy-makers. (p18)

The Growing Up In Ireland (GUI) data have been used to estimate prevalence level of SEN in Ireland. Banks and McCoy (2011) estimate it at 25 per cent, by combining the teacher and parent responses to questions on special educational needs of the children in the study, as well as teacher ratings of children on the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997).

The estimate was arrived at by first taking the teacher-reported data on whether the child had a physical disability, visual or hearing impairment; a speech impairment; a learning disability; or emotional or behavioural problem. Teachers identified 14.1 per cent of children across these categories with 1.2 per cent with physical, visual or hearing impairment; 0.9 per cent with a speech impairment; 7.4 per cent with a learning disability, 1.7 per cent with an emotional or behavioural problem and 3 per cent with 'multiple impairments' (Banks & McCoy, 2011, p89). This group includes some children with a learning disability and an emotional or behavioural problem (a third of the group) and speech impairment and an emotional behavioural problem (23 per cent).

Additional children identified by parent responses to three questions were then added to the teacher totals. The questions related to identifying:

- Children with a specific learning difficulty, communication or co-ordination disorder. (Dyslexia including dysgraphia and dyscalculia, ADHD, autism, Asperger's syndrome, speech and language difficulty, dyspraxia, slow progress, other.)
- Children whose parents have 'a lot' of concern about their speech.
- Children are 'severely' or 'to some extent' hampered in their daily activities by an ongoing chronic physical or mental health problem, illness or disability.

Parents identified 10.6 per cent of children with a specific learning difficulty, communication or co-ordination disorder. This consisted of children with dyslexia (4.2 per cent), slow progress (3 per cent), speech and language difficulty (just over 2 per cent), ADHD (1.4 per cent), autism / Asperger's syndrome (just under 1 per cent) and dyspraxia (just under 1 per cent) Some children were identified by parents as having more than one of these conditions. Worryingly, perhaps, one third of children identified by parents were not identified by teachers.

In relation to the second question on speech concerns, 1.4 per cent of children were identified, and fewer than 5 per cent in relation to the third question on the extent daily activities were hampered severely or to some extent by disability. In total an additional 5.9 per cent of children were identified by parents across all three questions.

Using the (GUI sample-derived) tenth percentile as a cut off on the SDQ for high risk emotional and behavioural difficulties (teacher-reported), an additional group of children (5 per cent) who had not been identified by parents or teachers as having a special educational need were added to give a total prevalence estimate of 25 per cent of children with special educational needs in Ireland.

In the GUI study, it important to note that the questions posed to teachers and parents in the GUI questionnaires differed.

Teachers were asked: 'Do any of the following limit the kind or amount of activity that the study child can do in school?'

- Physical disability or visual or hearing impairment
- Speech impairment
- Learning disability
- Emotional or behavioural problem (e.g. attention deficit (hyperactivity) disorder – ADD, ADHD)
- Home environment / problems at home
- Have a limited knowledge of the language of instruction
- Discipline problems
- Poor attendance.

Parents were asked: 'Do you think the study child has a specific learning difficulty, communication or co-ordination disorder? [If yes] What is the nature of the difficulty or disorder?'

- Dyslexia (including dysgraphia, dyscalculia)
- ADHD (attention deficit hyperactivity disorder)
- Autism
- Asperger's syndrome
- Speech and language difficulty
- Dyspraxia
- Slow progress (reasons unclear)
- Other.

Several issues arise from the differences in the questions for teachers and parents: first, variations in instrument wording present challenges when comparing data across parents and teachers; we cannot distinguish between children formally diagnosed with special educational needs from other children; some categories are rather broad (eg learning disability; slow progress [reasons unclear]); and the reference to ADHD, without reference to any other social, emotional and behavioural difficulty (SEBD) may have influenced teacher and parent interpretation of the questions and, in turn, their responses.

Difficulties with the wording and content of some questions used should also be borne in mind when considering GUI-based estimates of prevalence. Terms such as disorder, difficulty, and disability can be interpreted differently. In addition, the content and wording of questions concerning SEN differed across the parent and teacher questionnaires. The disaggregation of specific categories of SEN is made difficult by the global nature of some questions and the non-inclusion of categories such as autistic spectrum disorder (ASD) on the teacher questionnaire. That the SDQ data do not include self-reports from children puts limitations on the measurement of internalising behaviours. These issues are discussed further in Chapter 2, where we describe how we classified children for the present study.

It should be noted that we do not have a true population prevalence rate from any source, with the exception of a study on the prevalence of ASD conducted by researchers at DCU[8]. Notwithstanding the limitations and issues noted above, GUI provides reasonably reliable weighted prevalence estimates, but the response rate (57 per cent) should be borne in mind throughout.

1.3.3 Disproportionality in special education

Disproportionality in special education, which refers to the fact that SEN is not evenly distributed across the population, has been reported for minority groups, lower socioeconomic status and boys. It is more marked in some categories of SEN than others. It is beyond the scope of the present report to provide a detailed consideration of all of these factors. Instead, we highlight research findings intended to illustrate the issues which centre on the interplay between SEN identification, definition and measurement; social and other background characteristics; and biological influences.

The research literature points to a number of inter-related factors, including biological, socio-cultural and socioeconomic factors, and identifier bias as contributing to gender disproportionality in special education.

From a medical perspective, for example, boys have been shown to be disproportionately vulnerable to certain psychiatric conditions included in the Diagnostic Statistical Manual of Mental Disorders (DSM) such as autism, stuttering, and attention-deficit / hyperactivity. Codrington and Fairchild (2012) suggest a number of practical steps that need to be taken in an attempt to respond to, and align, state and local responses to gender disproportionality with larger policy reforms, including, crucially, the collection of dependable, accessible data categorised by gender, ethnicity / race, and age. As Codrington and Fairchild argue, the consequences of disproportionality in special education are profound, particularly when:

> Despite possibly good intentions, children in special education are most often relegated to learning environments with less academic rigor, as the focus is often on the management of emotional and behavioural [sic] issues, learning disabilities, and other impairments rather than on academic excellence, capacity development or preparing students to participate in the global marketplace (pp. 4-5).

On the other hand, the provision of supports, if made appropriately, can be advantageous and very positive for the children receiving them, while children in need but not receiving support, risk not realising their potential and disengaging altogether from their education.

Although research (Riddell & McCluskey, 2013; Mirowsky & Ross, 2012) has established that behavioural difficulties are socially patterned rather than randomly occurring, behaviour support interventions rarely acknowledge what Riddley and McCluskey (2012, p57) describe as 'the salience of gender and social deprivation'. Consequently, they argue, benign intentions of intervention may inadvertently and covertly end

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[8] http://www4.dcu.ie/marketing/staffnews/2013/jul/irishautism.shtml

up marginalising and 'responsibilising' the very populations they set out to support. Landrum (2011, p218) argues that in the US there is a dramatic under-identification of students with emotional and behavioural disorders in schools and that 'while the problem of disproportionality is not fully understood, it can be argued that there is in fact a need for more identification across all demographics.'

The issue of gender disproportionality in special education gives rise to concerns that boys, who typically 'act out', are labelled more often that girls whose internalising tendencies manifest in less overtly challenging behaviours, fewer assessments, labels and supports. Hence, the concern is often less to do with the over-representation of boys and more to do with the under-representation of girls and the negative implications this may have for their access to, and benefit, from state support and an effective and equitable education. From a sociological perspective, Benjamin (2010, p272) asks how 'the gendering of school and pupil cultures produce[s] a system which boys are disproportionately considered to have special educational needs, and through which extra resources associated with special educational needs are allocated disproportionately to them.' Benjamin (2010, p277) posits that where boys fail to make progress and disconnect from school work they channel this towards disruptive behaviour. In contrast, 'girls' expertise seems to lie in securing informal help: which can mean they access the help they need without recourse to official channels of special educational needs identification and assessment, but could also mean that their difficulties 'may remain undiagnosed and invisible' Riddell, (1996).

The over-representation of boys (and under-identification of girls) with SEBD is a global phenomenon (OECD, 2007) that in many countries extends not only to disproportionally labelling boys but pupils from minority ethnic groups in ethnically diverse countries (e.g. US, England and, increasingly, Ireland). Yet, the extent to which this plays out in different countries is very difficult to gauge due to different interpretations and uses of common terms including special educational needs, disability and learning difficulty which in turn makes the comparison of estimates difficult (as noted by Banks & McCoy, 2011, with reference to Ireland). More recently, attention is being paid to different forms of difficulties that come under the umbrella of SEBD, with some research pointing to the usefulness of distinguishing between internalising and externalising forms of behaviours. An implication of this is that the gender difference in SEBD may not be pronounced as more traditional (and even gender stereotyped) externalised behaviour measures would suggest, since many girls may experience internalised forms of SEBD (e.g. depressive symptoms), and risk not being identified and supported (see Frawley, McCoy & Banks, 2013).

Research has also identified variation in the patterns of teachers' identification and reporting of SEN, with considerable imbalance observed in the identification, and hence labelling, of boys with behavioural difficulties such as ADHD. Investigating the apparent gender imbalance in SEN identification, Vardill (2003) reviewed the decisions and judgements made by a cohort of teachers in the UK that informed their identification of the children they taught as having a special educational need. A discernible pattern of differential interpretation according to the nature of the learning difficulty was reported. For example, the prognosis for girls' academic learning was seen to be less positive than for boys, although there was a higher level of expectation of behavioural difficulties for boys. Highlighting the comorbidity of SEBD, the authors caution against interpreting research that links particular externalising (e.g. aggression and anti-social) and / or internalising (e.g. anxiety and depression) behaviours with poor academic performance, pointing instead to the mediating influence of attention-related characteristics. In other words, while some children may experience attentional difficulties which impact on time on task, these do not necessarily give rise to what would typically be described as behavioural and / or emotional difficulties. Research conducted in Norway with primary school children by Sørensen, Plessen and Lundervold (2012), which found symptoms of inattention to be a stronger predictor of cognitive control function than symptoms of emotional problems, supports this view.

It is acknowledged that assessment and identification of children with SEBD is a complex and multifaceted process that frequently requires the collaborative involvement of an interdisciplinary team employing multiple techniques and tools (NEPS, 2013). That said, the difficulty of ensuring consistency in approaches to the identification and assessment of SEBD raises perennial concerns. As Plotts (2012) argues, children with SEBD are a heterogeneous group with individual personal histories, domestic and social backgrounds, temperaments and unique personal, cognitive and social traits and skills – a heterogeneity that should be reflected in the nature and processes of any assessment.

The staged approach advocated in Ireland by the DES and NEPS reflects the view that assessment extends beyond, and incorporates more than, the administration of tests in accordance with agreed protocols and procedures. As Merrell (2003) suggests, rather, it is intended to be interpreted and undertaken in an inclusive, iterative, multifaceted manner that includes inter alia examination, review and understanding of the sources for, and rationale underpinning, referral, the data collection approaches and instruments employed, considered analysis and interpretation of assessment data, leading to an informed hypothesis and action plan.

At least two types of assessment bias may affect the over- or under-identification of vulnerable groups within the SEN population. The first occurs due to test and / or assessment bias which occurs when the methods and / or instruments of assessment systematically disadvantage a cohort of test takers and / or yield data that are not valid and reliable. Mindful that it is impossible to eliminate all bias, Ortiz (2002) argues that non-discriminatory assessment requires the inclusion of non-standardised assessments and tools the data from which might usefully be triangulated with those derived from standardised assessments, many of which are normed on populations that do not include certain categories of students with special educational needs (e.g. the Drumcondra Reading Test, a shortened version of which was used in the GUI study). This call for alternative assessment tools is not new (see for example, Desforges & Lindsay, 2010; Douglas *et al*, 2012; Lysaght, 2012; Lysaght & O'Leary, 2013) and reflects growing concern that what is required is nationally conceived and normed assessments tools that are highly sensitive to subtle changes in children's learning and whose trustworthiness also commands the respect of researchers, policy-makers and teachers alike.

The second source of potential bias arises because behaviour exists on a continuum with no clear delineation between what is considered normal, abnormal or disordered; hence, the process of identification is de facto highly subjective.

Kauffman *et al* (2011, p20) claim that researchers have not found a reliable explanation of gender disproportionality in special education. They go on to argue that:

> Disproportionality in special education is most often assumed to be a matter of bias in evaluation and decision making. Alternatively, it may be a function of disproportionality in life circumstances outside of school, the assumption being that causal factors are disproportional across groups. Strict proportionality assumes that the causes of exceptionality are randomly distributed across all groups, which seems to us unlikely for many disabilities, particularly high incidence disorders (those occurring most frequently).

There is also disagreement about specific forms of SEN and the extent to which biology is part of the explanation. In relation to dyslexia, for example, where traditionally more boys have been identified, Rutter *et al* (2004, p2011), following a review of four epidemiological studies, concluded that 'the epidemiological findings should now be sufficient for a firm statement that reading disability is truly more frequent in boys than girls'. However, Hawke *et al* (2007, p13), in research on twins with reading difficulties, concluded that 'these results provide no evidence for a differential aetiology of reading difficulties as a function of gender in more severely impaired samples, and suggest that the same genetic and environmental influences contribute to reading difficulties in males and females, irrespective of severity'.

Autistic spectrum disorders (ASD) is another SEN group where gender disproportionality is consistently found. Whitely *et al* (2010) have examined this issue on the basis of a sample of 1963 children diagnosed with autism, Asperger's syndrome, or autistic spectrum disorder. The overall gender ratio (male:female; all three groups combined) was about 7.4:1. This ratio varied across the groups, from 6.5:1 for autism, 6.8:1 for autistic spectrum disorder, to 12.1:1 for Asperger's syndrome. Whiteley *et al*'s (2010) analysis of annual trends indicated a tendency for these ratios to increase over time, despite no changes in sex ratios at birth. Their study is noteworthy since it provides evidence of both biological and social factors at play. It also suggests a higher male:female ratio for ASD than has been reported elsewhere (e.g. 4:1; Anderson *et al* [2013]).

Polloway, Patton and Nelson (2011) cite Skiba *et al* (2008) in listing strategies to tackle disproportionality in special education. These include attention to teacher education practices, better behaviour management strategies, increased emphasis on early intervention and response to instruction strategies, reduced bias in assessment, better family involvement and more culturally responsive schools.

1.3.4 Examples of large-scale surveys including children with special educational needs

This section considers some of the large-scale surveys that include information on children with special educational needs. In doing so, we describe outcome measures and key findings included in these data, as well as some of the data limitations.

The Growing Up In Ireland (GUI) survey is a Government of Ireland sponsored large-scale longitudinal study. In its first data collection (Wave I), it collected information from children, parents, teachers and school principals. Data specific to outcomes was collected from the older cohort, comprising 8,578 nine-year-olds, in relation to attitudes to school, standardised scores for reading and mathematics, absenteeism, homework completion, school setting, pupil-teacher ratio, discipline policy, classroom management, support for learning at home, parental expectations for the child, reading related resources in the home, peer relations, bullying, health and development, family relationships, use of health care and community services (Williams *et al*, 2009). However, in relation to disaggregating results for children with special educational needs, 'a challenge of large-scale surveys is that the special educational needs population is heterogeneous and divided into a variety of sub-groups, and some of these may still have small numbers, particularly on low-incidence disabilities [such as a visual or hearing impairment, an assessed syndrome, or moderate to severe general learning disability]' (Douglas *et al* 2012, p23). This turns out to be the case with GUI: Chapter 2 describes how we classify children for this study in a way which attempts to take the limitations of the data into account.

Humphrey *et al* (2013, p909) report on 'a significant and original contribution to knowledge' in the 'first large-scale multi-level empirical investigation of the factors associated with academic attainment among students with SEND50' (p913). Using a sample of 15,000 students with special educational needs attending over 400 schools across England, Humphrey *et al* (2013) highlight important factors that influence student achievement in English and mathematics.

Another important source of data informing research in this area is the Effective Pre-School, Primary and Secondary Education project or EPPSE, which covered the period 1997 to 2013. This large-scale, longitudinal study of the progress and development of children from pre-school to post-compulsory education examines aspects of pre-school provision which have a positive impact on children's achievement, progress and development (Sammons, 2013).

More than 2,800 children were assessed at the start of pre-school around age three and their development was monitored until they entered school around age five. They were assessed again at key points until the end of Key Stage 3 (around age 14) of secondary school and in the final year of compulsory schooling at age 16.

The study reports on the influence of child, family, home factors and pre-school education on the identification of SEN in England. Research questions included: What increases the risk of identification of SEN? Can early years home learning environment (HLE) and pre-school experience help to reduce the incidence of SEN later in primary school? What are the views and experiences of students identified as having special educational needs?

The (US) Special Education Elementary Longitudinal Study (SEELS) was sponsored by the Office of Special Education Programs (OSEP) of the US Department of Education and was conducted by SRI International. SEELS surveyed a nationally representative sample of more than 11,000 students aged six to 12 and receiving special education (across 12 federal categories) in the first or higher grades on September 1, 1999 (Blackorby *et al*, 2007). SEELS has collected data on three occasions over five years on child and family characteristics; children's school programmes, teaching and learning, and accommodations; and a broad set of outcome measures, including academic progress and social development.

SEELS has contributed to the body of knowledge related to the range of factors associated with differences in student performance and outcomes. The final report was published in 2007.

1.3.5 Outcomes for children with special educational needs

Achievement in mathematics

Internationally, the establishment of national learner or pupil databases which include SEN markers has enabled the recording of pupil progress and outcomes. They also allow researchers to compare children in interventions studies with others over time across a range of measures. An excellent example of this is the Achievement for All project in England (Humphrey & Squires, 2011). We discuss the results here since they indicate how a study designed specifically to evaluate a special needs intervention programmes can inform policy and practice. However, most of the data on outcomes and progress of children with special educational needs come from population datasets (rather than purposive sampling of the special educational needs sub-population), which lack measures capable of informing this area in specific ways, and are cross-sectional rather than longitudinal.

Very encouraging findings on the effects of targeted interventions for pupils with special educational needs are reported for the Achievement for All project. This study linked research study data on pupils in schools implementing the AfA programme to national pupil data, allowing for comparisons with national trends.

In relation to mathematics, following the intervention pupils with special educational needs in Year 1 in AfA schools made better progress over 16 months than pupils with and without special educational needs nationally. These differences were both statistically significant and the associated effect sizes were large and medium-large, respectively. The same result was seen for the progress of pupils in Year 5 over 19 months, with the associated effect sizes being very large. Pupils in Year 7 made more progress over 19 months than pupils with special educational needs nationally but made less progress than pupils without special educational needs nationally. These differences were statistically significant, although the associated effect sizes were small. Pupils in Year 10 made more progress over 19 months than pupils with and without special educational needs nationally.

The study revealed a range of processes and practices that were important in improving pupil outcomes. Key factors leading to improvement in outcomes included:

- The AfA lead was the principal or a member of the senior leadership team.
- Teachers were more frequently involved in reviewing individual pupil targets and using data to inform assessment, tracking and intervention.

- Parents were more frequently involved in reviewing individual pupil targets.
- A greater range of methods of communicating information to parents about pupils' progress was used.
- A greater range of professionals had access to pupil information.
- Two or three structured conversations with parents were completed for a larger proportion of pupils.
- The structured conversation model was implemented with greater fidelity.

While GUI did include measures of children's achievement by administering the Drumcondra Reading (vocabulary section) and Mathematics Tests (Part A), these are short, general tests that can provide only a very broad indication of children's vocabulary and mathematics standards. Information about why certain children were exempted from or did not sit the tests is not included in the GUI documentation or reports. However, the Wave I dataset indicates that achievement data are available for all but 2.7 per cent of children for reading, and all but 1.8 per cent for mathematics.

Children with special educational needs achieved significantly lower reading and mathematics scores: the achievement gap was above one standard deviation. In addition, having a chronic illness was associated with lower mathematics scores, but at a much smaller scale than the impact of a learning disability (McCoy, Quail & Smyth, 2012).

The 2009 National Assessments of Mathematics and English reading in Irish primary schools is the most recent in a series of such assessments conducted at regular intervals since 1972. Mathematics and reading tests were completed by almost 4,000 second and 4,000 sixth class pupils. In 2009, different class levels were assessed than in previous national assessments and new test materials developed and used. Comparison with previous results is therefore not possible, but the 2009 results provide baseline data against which future performance can be compared (Eivers *et al*, 2010).

Data in relation to the outcomes of children availing of learning support / resource teaching in Irish primary schools are available through this large sample-based evaluation. Eivers *et al* (2010) report that pupils receiving any form of additional support performed poorly on both assessments, which have a national mean of 250 and a standard deviation of 50. For example, sixth class pupils with learning support / resource reaching (LS / RT) for mathematics under the general allocation model (GAM) obtained mean scores of 190 (mathematics) and 198 (reading) – both of which are over one standard deviation below the national averages. Further, those with LS / RT for English obtained means of 194 (English) and 199 (mathematics). Similar findings were found for the 1-2 per cent of pupils with resource teaching (low incidence special educational needs).

Eivers *et al* (2010, p46) report that 'just under half of pupils' teachers felt there was a great deal of cohesion between the pupils' class and LS / RT programmes, while at least 40 per cent felt there was a certain amount of cohesion. However, the teachers of 13 per cent of sixth class pupils felt there was little or no cohesion between class and LS / RT programmes. Given that learning support provision is designed to be supplementary to the mainstream class provision this lack of coherence is surprising and points to possible difficulties in the collaborative planning process between learning support and class teachers.

Despite policy initiatives towards in-class models of support, Eivers *et al* (2010, p85) found that 'while between 13-18 per cent of pupils were in classrooms where in-class support for mathematics was the commonest method of additional support, this was true of only 5-7 per cent of pupils for English'. They speculate that this may account for fewer than half of class teachers felt there was good cohesion between class and LS / RT programmes.

In addition, in contrast to the findings concerning feedback in the Achievement for All project in England, Eivers *et al* (2010) found that in the 2009 National Assessment, under one-third of pupils were in schools where standardised test results were used to provide individual feedback to them.

In 2007, the Educational Research Centre (ERC) gathered data on the achievements in reading and mathematics of pupils in 120 schools participating in the urban dimension of the School Support Programme (SSP) under DEIS. In 2010, and 2013 follow-up achievement data were collected from pupils in the same 120 schools (Weir *et al*, 2011; Weir & Denner, 2013). Although the assessment reports did not examine progress of children with special educational needs in these schools, they are worth considering, since they indicate that initiatives under DEIS have been associated with progress in reading over a three-year period.

Comparing the 2007 results with those of 2010 and 2013 showed that later groups had significantly higher test scores in reading and mathematics at each grade level tested. A comparison of the same pupils' achievements on each assessment occasion also showed significant improvements (Weir & Denner, 2013). This improvement occurred even though there were slightly fewer exemptions of pupils experiencing difficulties with mathematics in 2013 (0.9 per cent) than 2007 (1.7 per cent).

Although the reports on achievements of pupils in DEIS over time did not examine the outcomes of those with special educational needs, it is nonetheless relevant to note that the percentage of pupils attending urban primary schools achieving very low test scores (at or below the tenth percentile) decreased between 2007 and 2010, and again between 2010 and 2013 (Weir & Denner, 2013). By 2013, for reading for example, the percentage of pupils in second class achieving at or below the tenth percentile had halved, from 22 per cent to 11 per cent, for third class, these figures are 26 per cent to 17 per cent, and 28 per cent to 20 per cent at sixth class. Hence, more dramatic improvements are evident among younger children. Changes at the top end of the achievement distribution were also observed. For example, while 2 per cent of second class children achieved reading scores at or above the 90th percentile in 2007, this had increased to 4 per cent in 2013.

Improvements in achievement were also evident in Rural DEIS schools participating in the SSP, with a reduction during 2007-10 in the number of low achieving pupils in both reading and mathematics (Weir & McAvinue, 2013). Moreover pupils experiencing educational disadvantage in rural areas were on average doing better than their counterparts in urban areas (Weir & McAvinue, 2013).

Irish fourth class pupils participated in the Trends in International Mathematics and Science Study (TIMSS) 2011, the first occasion since 1995 that Irish pupils participated in a large-scale international assessment of mathematics at primary level. Clerkin (2013) reports that there has been little change in the overall performance of Irish pupils since 1995. However, Clerkin (2013, p56) also points out that 'significantly fewer pupils in 2011 (6 per cent) than in 1995 (9 per cent) failed to reach the Low Benchmark. This can be taken to mean that, although there has been no increase in the proportion of pupils with the most advanced skills and understanding, more Fourth class pupils now have at least a basic understanding of mathematics'. This is encouraging from a policy point of view given the increase in resource and learning support teachers in primary schools since 1995, though the data do not allow causal links to be made between resourcing and achievement. Importantly, the data provide no specific information on the performance of children with special educational needs, so comparisons with levels of achievement between 1995 and 2011 are not possible.

TIMSS examination of pupil attitudes showed more pupils in Ireland (23 per cent) did not like learning mathematics compared to their peers internationally (16 per cent). Taking other variables such as gender and socioeconomic background into account, liking mathematics was related to better performance on the TIMSS assessment (Cosgrove & Creaven, 2013). Liking of school and school subjects is examined as one aspect of children's outcomes in this report (see Chapter 3).

Achievement in reading literacy

A national evaluation project examined the impact of Achievement for All (AfA) on pupil progress in English in Years 1, 5, 7 and 9 in the UK. It found that pupils with special educational needs and disabilities in each of these groups in AfA schools made significantly more progress during the project compared to pupils with special educational needs nationally over an equivalent period of time (Humphrey & Squires, 2011). Also, these pupils with special educational needs in Years 1, 5 and 10 made significantly more progress nationally than those without such needs. The effect sizes associated with these differences ranged from small (in Year 1) to large (in Year 5). Despite such encouraging outcomes for the AfA project, progress in English varied among different groups of pupils with special educational needs in primary schools. Those with more complex needs, as in having a statement of SEN and with severe learning difficulties, made relatively less progress. Children identified as having behavioural, emotional and social difficulties, specific learning difficulty and physical difficulties all made relatively more progress.

Reading test scores (measured on the vocabulary component of the Drumcondra Reading Test [English]) from the first wave of Growing Up In Ireland child cohort indicated that two-thirds scored at the expected level while girls and boys had a similar percentage of correct scores (67 per cent and 68 per cent, respectively). However, a large achievement gap of more than one standard deviation was reported for children with learning disabilities while, as noted previously, data on the number of and reasons for exclusions are not available (McCoy, Quail & Smyth, 2012).

A National Assessment of English reading of pupils in second and sixth class was conducted in 2009 (Eivers *et al*, 2010). The assessment was comprehensive in including a vocabulary section and two comprehension sections and was completed by almost 4,000 second and 4,000 sixth class pupils. Test scores were grouped according to four proficiency levels, with Level 1 representing the most basic reading skills and Level 4 the most complex. While 10 per cent of pupils were classified at Level 4, 10 per cent failed to reach Level 1 and therefore did not demonstrate the most basic skills on the domain being assessed.

Along with reading assessment, contextual data were obtained from questionnaires completed by pupils, parents, class teachers and principals (Eivers *et al*, 2010). Pupil characteristics associated with higher test scores were high attendance rates, positive ratings by self, parents and teachers and enjoyment of reading. Apart from SEN, lower pupil achievement generally was associated with low familial socioeconomic status, parental unemployment, membership of the Traveller community, speaking a first language other than English or Irish, living in a lone-parent household, or being part of a large family: all factors which may have an exacerbating effect on children with special educational needs (an issue explored in Chapter 5).

In 2011, Ireland participated in the Progress in International Reading Literacy Study (PIRLS) which assessed the reading achievement of fourth class pupils (Eivers & Clerkin, 2012). Of the initial 4,825 pupils selected to participate, less than 1 per cent were excluded because of an intellectual disability or limited English proficiency. Participating pupils totalled 4,524, had an average age of 10.3 years, and were relatively evenly divided by gender (51.1 per cent boys and 48.9 per cent girls). The PIRLS data were based on assessment of children's achievement in relation to reading purpose and comprehension processes on two text types: literary and informational. The reading skills assessed were hierarchically organised in terms of complexity under four international benchmark descriptors: advanced (625), high (550), intermediate (475) and low (400). Findings revealed that Irish pupils achieved a mean score of 552. This was significantly above the PIRLS scale centrepoint (500), placing Ireland in tenth position out of 45 countries and scoring significantly lower than that of only five of the nine countries ranked above it. The percentage of Irish pupils reaching the Advanced International Benchmark was high (16 per cent) in comparison to the international median (8 per cent), while more than half of Irish pupils reached the High International Benchmark (53 per cent). Only 3 per cent of Irish pupils did not reach the Low International Benchmark compared to the international median of 5 per cent.

The PIRLS data provide a positive report of reading achievement among Irish primary pupils generally, but give no information specifically on children with special educational needs. Also unlike TIMSS, no comparison with previous international studies of reading achievement is possible.

Parental expectations for children's academic performance

Parental expectations are acknowledged as playing a key role in children's academic success. Students whose parents hold high expectations achieve higher grades, attain higher scores on standardised assessments, and remain longer in education than those whose parents hold relatively low expectations (Davies-Kean, 2005; Vartanian *et al*, 2007). Moreover, parents' academic expectations mediate the relation between family background and achievement (Benner & Mistry, 2007; Zhan, 2005) and have been reported as the strongest family-level predictor of student achievement outcomes, exceeding the variance accounted for by other parental beliefs and behaviours (Jeynes, 2005, 2007). Students who reported that their parents expected them to go to college had better school attendance and more positive attitudes towards school (Entwhistle, Alexander & Olsen, 2005). SEELS data confirm the important role of family factors in understanding differences in the academic performance of students with disabilities. Of particular note are the relationships between academic outcomes and both household income and expectations for educational attainment.

According to the National Household Education Survey (NHES) (2007) conducted in the USA, parental expectations differed by household income level with low income parents ($25,000 annual income or less) being eight times as likely as the wealthiest parents ($75,000 or more) to expect their child to progress no further in education than high school. Parental expectations by parents' own level of education followed a similar pattern, with highest expectations for their children being held by parents with higher levels of educational attainment. Data also revealed that parental expectations can decline as the child gets older: 73 per cent of parents of sixth- to eighth-graders had expectations of a bachelor degree or higher for their child compared with 69 per cent of parents of ninth- and tenth-graders, and 66 per cent of parents of 11th and 12th.

An explanation for the decline in parental expectation with increase in child's age has been found in parental attributions about the causes of successful school performance. Parents who attribute achievement outcomes primarily to ability or intelligence hold more stable expectations of performance as ability tends to be viewed as a stable entity (Weiner, 2005). For parents holding this belief system, past performance and current school grades are interpreted as reliable indicators of future attainment. In contrast, parents who attribute school success to student effort, which is more controllable by the individual and others, and thus unstable, are more likely to consider that future can vary from past performance, depending on student effort (Okagaki & Frensch, 1998; Stevenson & Stigler, 1992; Yamamoto & Holloway, 2010). As such, it appears parental attribution about the causes of school success has implications for student achievement, both current and future.

The relationship between parental expectations, socioeconomic measures and educational attainment is important in SEN since research (e.g. Shandra & Hogan, 2009, USA) indicates that parents are likely to have lower educational expectations when their children have a mild or serious disability, net of school performance. Wave II GUI data of the child cohort confirms that at age 13, children with a special educational need had lower educational expectations than their peers: 38 per cent expected to get a degree, compared with 54 per cent of those without a special educational need (ESRI / TCD / DCYA, 2012). More detailed analyses that take account of the demographic and socioeconomic backgrounds of these children have yet to be undertaken, however. Chapters 3 and 5 examine parental educational expectations of children with and without special educational needs on the basis of the GUI data.

The authors of the SEELS report summarise the issues relating to SEN, educational expectations, and socioeconomic and social background characteristics as follows:

> SEELS findings confirm the important role of family factors in understanding differences in the academic performance of students with disabilities. Of particular note are the relationships between academic outcomes and both household income and expectations for educational attainment. Although these factors are intertwined, in that families that can afford postsecondary education would be more likely to hold expectations that their children would pursue it, the two factors each have consistent and significant relationships with the academic performance of students with disabilities. (Blackorby *et al* 2007, Ch. 5, p. 9)

Related to parental expectation is parental involvement with school, which has been shown to influence attendance, attainment and behaviour. Investigating the impact of parental involvement, specifically the variation of engagement and confidence among parents of learners with special educational needs and disabilities, Barlow and Humphrey (2012) focused on parental attitudes towards access and communication with their child's school and how confident they were that the school was meeting their child's needs. Survey data were collected from the parents of 2,123 children with special educational needs attending 373 schools across ten local authorities in England. Analysis using hierarchical linear modelling revealed that most of the variation in parental engagement and confidence was located at pupil level (89.7 per cent), with school differences accounting for the remaining 10.3 per cent. At pupil level, ethnic origin, socioeconomic status, SEN provision and primary need, bullying and their wider participation in school were statistically significant predictors of parental engagement and confidence, and combined accounted for more than 20 per cent of pupil level variation.

Regarding school differences, school location, socioeconomic composition and size were not found to have a significant impact on parental engagement and involvement. However, school achievement and the proportion of pupils in the School Action phase of SEN provision were predictors of variation at the school level, accounting for more than 80 per cent of school-level variation. As such, schools with higher school achievement and a higher proportion of pupils on the SEN register at the School Action stage (first of three) of provision had higher levels of parental engagement and confidence. Given the significance of variation at pupil level, Barlow and Humphrey (2012) argue for school awareness of groups vulnerable to disengagement and for the development and implementation of school-wide policies on wider participation and bullying. They believe this might increase engagement and confidence, and ultimately involvement with school, among parents of learners with special educational needs.

Teacher expectations for children's academic performance

Following the classic study by Rosenthal and Jacobson (1968) on the self-fulfilling prophecy which demonstrated that children's intellectual development was shaped by teacher expectations, much research has focused on the relationships between teacher expectations and student academic performance. Meta-analyses indicate that experimentally-induced positive expectations increase student performance (Rosenthal, 1994; Rosenthal & Rubin, 1978). Non-experimental studies of teacher expectations indicate that children whose teachers underestimate their abilities achieve less in school than would be predicted on the basis of their test scores while those whose abilities are overestimated achieve more (Jussim & Eccles, 1995; Jussim & Harber, 2005; Weinstein, 2002). While research supports the self-fulfilling prophecy as a phenomenon in classrooms, its magnitude tends to be consistently modest in experimental studies (effects sizes between 0.1 and 0.3) and small in naturalistic studies (Jussim & Eccles, 1995; Jussim, Robustelli & Cain, 2009; Rosenthal & Rubin, 1978). However, the research highlights complexities associated with teacher expectations in that more vulnerable students, categorised from low-income families, low achieving students, those who perceive differential treatment and minority students are more susceptible to the influence of teacher expectations

(Hinnant, O'Brien & Ghazarian, 2009; Kuklinski & Weinstein, 2001; Madon, Jussim & Eccles, 1997; McKown & Weinstein, 2008; Sorhagen, 2013). Although not identified as a particular group, it is likely that children with special educational needs would be classified among the more vulnerable students.

Based on analysis of longitudinal data from 1,000 children and families at first, third and fifth grade, Hinnant, O'Brien and Ghazarian (2009) found social skills were a consistent predictor of teacher expectations of reading and mathematics abilities. Children's social skills were rated by their teachers on items relating to the dimensions of co-operation, assertion, responsibility and self-control. Findings indicated that children's social skills were significantly and positively related to teacher expectations for reading and mathematics at all three time points. Hinnant *et al* propose that teachers may overestimate the academic competence of children they 'like and find easy to manage in the classroom' (p669). While teacher expectations in first and third grade were unrelated to later child reading performance generally, teacher expectations of children's reading abilities were related to the later performance of minority boys. This potentially vulnerable group had the lowest performance when their abilities were underestimated and the greatest gains when their abilities were overestimated. These findings have implications for children with social and emotional difficulties whose social skills are not likely to be positively or highly rated by their teachers. In this report, we explore this issue by comparing the reading and mathematics scores of children with and without special educational needs to teacher and parent perceptions of their children's proficiencies (Chapter 3).

School engagement of children with special educational needs: A complex picture

It could be concluded from some research that children with special educational needs tend to be less engaged in their education than those children without. However, the picture is more complex. Using GUI data from the nine-year-old cohort, Banks and McCoy (2011) have found disparities in attitude to schools were linked to the nature of SEN, gender, age and socioeconomic background of children and in turn negatively affected children's engagement with, and enjoyment of, school – and ipso facto academic achievement. These findings reflect others derived from other GUI-related reports (e.g. Nixon, 2012), that reported higher incidences of emotional problems among girls, while boys were more likely to have behavioural problems and to display more difficulties overall.

The educational underperformance of students with SEBD relative to their typically developing peers is well documented (Cullinan, Epstein & Lloyd, 1991; Lane, 2007) and is frequently linked to poor outcomes in reading, mathematics and writing (Wagner *et al*, 2005). So too are the common characteristics of students with SEBD that negatively affect academic progress including inattentiveness (which interferes with time on task), limited motivation and self-regulation skills, less developed inter-personal skills, negative attitudes to school and so on. Of particular note, in this context, are teacher concerns about low-level, persistent, disruptions (INTO, 1995; Ofsted, 2005), the 'particularly pernicious ... cumulative effects' (Hart, 2010, p353) of which affect the quality of teaching and learning. However, the relationship between low academic achievement and SEBD is not unidirectional (Hallenbeck & Kauffman, 1995). Rather, regardless of which emerges first – SEBD or academic underachievement – a 'reciprocal relationship' (Trout *et al*, 2003, p198) exists that affects students in the immediate and long-term: SEBD '...almost always leads to academic failure' that 'in turn, predisposes [students] to further antisocial conduct' (Hallenbeck & Kauffman, 1995, p64).

Barringa *et al* (2002) highlight that the capacity to identify appropriate intervention strategies depends on greater understanding of the relationship between SEBD and academic underachievement. This, they argue, applies whether one interprets low academic achievement as a significant risk factor for SEBD (termed a psychopathological perspective on the issue) or one assumes a reciprocal relationship to exist between the two (termed a systemic perspective).

The intractability of the reciprocal relationship between SEBD and academic achievement has given rise to a research focus on the strong social, emotional and academic components of teaching and learning (Durlak *et al*, 2011). Highlighting the social-constructivist nature of learning in schools, and the relationship between affective and cognitive development in particular, this research emphasises the role of schools and teachers in developing 'rounded' students by attending to their social, emotional, behavioural and academic needs.

The multifaceted and significant challenge that this presents for schools is a recurrent theme in the literature on inclusion that emphasises, inter alia, the changing demographics within schools (mainstream and special), the increasingly challenging, comorbid needs of students, particularly those with SEBD (Day, Prunty & Dupont, 2012; Scanlon & Barnes-Holmes, 2013; Shevlin *et al*, 2009) and how SEBD is interpreted and addressed (e.g. as a problem to be resolved in isolation and in advance of attending to the academic education of a student or as an integral element of the student's overall education). Moreover, the successful inclusion of children with SEBD is often compromised by school responses to disruptive classroom behaviours (e.g. aggression, non-compliance, impulsivity) that result in classroom and, sometimes, school exclusions of various lengths of time (Harrison, Budford, Evans & Sarno Owens, 2013). In turn, the research points to children with SEBD as feeling unfairly treated, unsupported, rejected and excluded from academic and social aspects of school life (Cefai & Cooper, 2010; Banks & McCoy, 2012).

Such research highlights the 'chicken and egg' dimension of the problem and underlines the vulnerability of students whose less developed social-emotional competencies puts them at risk of disconnection with teachers and peers, exclusion and academic under-achievement (Blum & Libby, 2004). The key findings of a study of 840 seven-year-old children that sought to examine links between social adjustment, academic adjustment and the ability to identify emotion in facial expressions illustrates this point. Goodfellow and Nowicki (2009) reported that nonverbal receptive skill play a significant role in children's social and academic adjustment, was associated with teacher-rated behavioural difficulties for all students, and interfering in peer-relationships for boys and in academic learning for girls.

McCoy and Banks (2012) used data from the Growing Up In Ireland study of nine-year-olds to examine the processes underlying school engagement for children with special educational needs and the way in which school experiences explain patterns of disengagement. Findings include that children with special educational needs (12 per cent) are significantly more likely than their peers without such needs (7 per cent) to report that they 'never like school'.

The title of the paper *Simply Academic? Why Children with Special Educational Needs Don't Like School* (McCoy & Banks, 2012) is slightly misleading in that it is a minority of such children who feel this way and within the categories there are many with no significant difference with peers without special educational needs. Children with physical, visual, hearing and speech difficulties were no different to peers without in this regard. Children with more than one disability, emotional and behavioural difficulties and learning disabilities were more likely to dislike school than their peers.

Within those children with special educational needs disliking school, boys were significantly more likely to feel this way, all else being equal. Likewise, such children whose parents reported no occupation were more likely to dislike school. Measures of academic engagement (liking mathematics and reading and completing homework) and measures of social and peer relations (liking teacher, SDQ scale, self-concept scale) were all significantly related to school engagement. After taking these measures into account children with a learning disability and more than one disability were 'no longer significantly more likely to never like school – their disengagement is largely mediated by their levels of academic engagement and the nature of their social and peer relations' (McCoy & Banks, 2012, p92).

Thus for children with special educational needs who for various and complex reasons dislike school, their attitudes towards mathematics and reading influence their levels of happiness with school as do their social relations with peers and teachers. Interpreting these results McCoy and Banks (2012, p94) argue that some children with learning disabilities 'face considerable barriers to fully engage in school life'.

Attendance outcomes for children with special educational needs

Attendance (or absence) rates are useful indicators to consider since they are related in a general way to school engagement and prospectively related to early school leaving (Douglas *et al*, 2012).

The National Education Welfare Board (NEWB) publishes a yearly analysis of attendance data in primary and post-primary schools. The 2012 report noted that non-attendance is 'substantially higher' in special schools (11.3 per cent) and in schools with special classes (7.5 per cent) than other primary schools (5.6 per cent) (Millar, 2012, pii). Data, however, were not disaggregated for children with special educational needs attending mainstream classes. In the 2013 analysis, while the figure for total absences fell for mainstream primary schools to 5.3 per cent it rose in special schools to 12.4 per cent, more than twice the figure for mainstream schools (Millar, 2013, p24). We cannot infer from these results, though, the extent to which these higher absence are related to children's background characteristics (e.g. health status), or school characteristics.

We are not aware of research in the Irish context that has analysed attendance rates at the individual child level for SEN type and other background characteristics.

Bullying and special educational needs

It is readily acknowledged in international literature that bullying is a global phenomenon, the definition and nature of which is becoming increasingly difficult to categorise and define (Catalano *et al*, 2014; Corcoran & McGuckian, 2014) due, at least in part, to the emergence of a range of technologies and mobile devices that facilitate cyber-bullying.

In turn, an evolving area of research linked to inclusive education focuses on the vulnerability to, and incidence of, bullying perpetuated on and by children with special educational needs in mainstream settings (e.g. Minton, 2010; McLaughlin, Byers & Vaughan, 2010; Pijl, Skaalvik & Skaalvik, 2010). The findings of a comprehensive literature review on this issue, undertaken on behalf of the Anti-Bullying Alliance in the UK between February and June 2010, is noteworthy. Breaking with the tradition of examining specific categories of SEN and / or disability, which resulted in '…a 'patchwork quilt' of research findings relating to different groups', McLaughlin, Byers & Vaughan (2010) undertook to provide 'an overview and meta-analysis' (p11) of the evidence that (a) children and young people with special educational needs are particularly vulnerable to being bullied and / or victimised by peers at school, (b) how this plays out in schools and (c) the challenges schools face in anticipating and responding to the needs of these children. As reported, children with special educational needs and / or disabilities, particularly those with mild and / or 'hidden' disabilities, are disproportionately at risk of experiencing a continuum of bullying-related experiences that range from marginalisation and isolation to hate crimes, with relational rather direct bullying being experienced more frequently.

Among the characteristics that predispose children with special educational needs to such experiences are poor social, language and communication skills, academic difficulties and under-performance at school, low self-esteem and anxiety with tendencies to internalise problems, differences in physical attributes, shyness, submissiveness, passivity and an external locus of control, unco-operative, disruptive behaviour and aggression and low social status. Such characteristics reflect both within child and contextual factors (e.g. the organisation, structure and mediation of teaching and learning in schools), with the latter, in some cases, exacerbating rather than ameliorating the incidences of bullying and exclusion (Cooper & Jacobs, 2012).

In response to the dearth of research on Irish school pupils' experiences of aggressive forms of bullying in the autumn / winter school term 2004-05, Minton (2010) used an adapted version of the Olweus Bully / Victim Questionnaire to survey primary and post-primary students (n = 5,569; 2,312 primary level eight- to 12-year-olds – 925 male, 1,327 female) in 106 schools nationwide that, at the time, were participating in an anti-bullying programme.

Although no specific reference is made in this report to children with special educational needs, the prevalence and nature of gender-specific bullying is noteworthy. At primary level, 35.3 per cent of the sample reported involvement in bully-victim incidents. Gender differences, reflected in distinctions between 'direct' and 'indirect' forms of aggressive behaviours being inflicted on, and by, boys and girls respectively also emerged. These data are complemented by those from the Growing Up In Ireland study (2009) according to which 40 per cent of nine-year-olds reported being victims of (any form of) bullying in the previous year, although in this case, similar rates of victimisation were reported by boys and girls. In response, the Report of the Anti-Bullying Working Group to the Minister for Education and Skills (2013) has included a series of action steps, one of which is that the forthcoming new national guidelines on bullying should make specific reference to students with disabilities and / or special educational needs.

1.3.6 Previous qualitative research on the experiences and outcomes of children with special educational needs

To our knowledge, little qualitative research on the experiences and outcomes of children with special educational needs (as voiced by children and their parents) has been published in Ireland. This is not to say that there has been no qualitative research in special educational needs more generally. For example, Ware *et al* (2009) have made extensive use of qualitative data in a report on the role of special schools and classes in Ireland; Banks & McCoy (2011) included qualitative data to help identify issues in estimating SEN prevalence; and qualitative methods were used in analyses of stakeholder views on educational provision for SEN at primary level (NDA, 2006).

Green, Darling and Wilbers (2013) have conducted a meta-analysis, comprising 78 qualitative studies, on parents of children with disabilities, conducted between 1960 and 2012. Their analysis indicates that parents continue to experience stress and difficulties, especially early in their children's lives. However, in contrast to earlier decades, more recent studies tend to use the social model of disability, and increasingly report that parents are questioning and challenging the concept of 'normal' itself.

In a report of early school leaving in Ireland (Joint Oireachtas Committee on Education and Skills [JOCES], 2010) findings of interviews / focus groups with several key groups that were identified as being vulnerable on the basis of a literature review and consultation process were reported under several themes, including SEN. Under this theme, several participants felt strongly that more resources were required to underpin special needs education and support, particularly non-provision of support and provision of support after a considerable delay. The cases mentioned in the report focus on these young people's transition to post-primary school, a critical time in the life of any young person. At a broad level, the issues raised relate to the transition to post-primary, information sharing, provision and continuity of services.

Two young adults with special educational needs were interviewed as part of the early school leaving study (JOCES, 2010). One was assessed with borderline GLD, and his interview suggests that the lack of information sharing between primary and post-primary may have contributed to his expulsion from school at age 15 in his Junior Certificate year. One mother in the parents' focus group for this study had a son with a delay in the assessment process leading to his diagnosis long after she had flagged to the school that her son was having difficulties in school. The provision of one-to-one teaching for him was delayed, resulting in his disengaging from school. A further sequence of events ensued with the boy ending up in a juvenile detention centre.

If anything, the JOCES (2010) report helps to highlight the importance of individual characteristics and contexts in gaining an understanding of the progress and outcomes of children and young people with special educational needs.

Chapter 6 in this report aims to extend the qualitative research into the experiences and outcomes of children with special educational needs using information gathered from the parent and child interviews. Importantly, and commonly the case in surveys not designed specifically to examine SEN, we lack a clear description and diagnosis of the children in some interviews as regards special educational needs. This difficulty is compounded by no direct linkages existing between the qualitative and the quantitative data collected in GUI (that is, we cannot match individual children's quantitative and qualitative data). Nonetheless, it is hoped that findings in Chapter 6 add useful insights into this area of research.

1.4 Provision and support for children with special educational needs in Irish primary schools

At a policy level, provision and support for children with special educational needs in Irish primary schools is governed by key legislation including the Education Act, (1998) and the Education for Persons with Special Educational Needs (EPSEN) Act (Government of Ireland, 2004) alongside circulars from both the DES and the NCCA (National Council for Curriculum and Assessment). The key policy is a presumption in favour of inclusive education unless it is not in the best interests of the child. Resources are allocated by two main processes: the General Allocation Model (GAM) and through individual application to the NCSE.

The GAM is designed to break the link between the need for a label and access to resources and to ensure all schools have a quantum of resources to support inclusive education for children with high incidence special educational needs. Under the EPSEN (2004) the NCSE is required to maintain a continuum of provision and support is provided for children placed in special schools and classes. Individual applications are made for resource teaching hours, specialist equipment, assistive technology, special needs assistants and transport arrangements for children with low incidence special educational needs. A comprehensive list of the range of supports and provision for children with special educational needs is provided in appendix A of the NCSE (2013) publication Supporting Students with Special Educational Needs in Schools. Difficulties with the current system of provision and resource allocation have been outlined above and, more recently, progress has been made on this issue with the publication of a proposal for a new model of resource allocation and support (NCSE, 2014). A major policy issue in this area is the full implementation of the EPSEN Act (2004) in relation to assessment and planning for individual needs.

1.5 Issues and gaps in existing research

Douglas *et al* (2012) highlight many gaps in our knowledge of the participation and outcomes for children with special educational needs in Ireland in the Irish context. While a much data is collected across the system through State examinations, standardised testing, national assessments of literacy and numeracy and participation in international assessments, a number of difficulties arise in using and analysing this data. First, there are inadequate or no special educational markers which allow disaggregation of the data for special educational needs. Second, not all children with special educational needs participate in the assessments since many are exempted and / or absent. Third, at a system level we lack national pupil databases with a SEN marker.

Students with special educational needs are currently marginalised by (a) their non-identification and for some their non-representation in national and international audits of performance, the outcomes of which are used to guide and shape policy decisions and (b) the opportunities that are lost to evaluate the efficacy of provisions made and interventions undertaken in support of students with special educational needs. This problem reflects, at least in part, the bluntness of the assessment tools employed to measure knowledge, skills and competences across the developmental spectrum and the exclusion, in many cases, of children with special educational needs from the samples used to devise national norms for standardised tests (Douglas *et al* 2012; Lysaght, 2012).

There is evidence, however, of much information being collated at class and school level. Apart from standardised test results, though, much of this information is not in a structure which would allow use at a national level for analysis. In addition, there is evidence of much variability within and between schools in relation to the quantity and quality of this assessment data (Douglas *et al* 2012).

Douglas *et al* (2012) outline the complexity of the issues in relation to gathering outcome data which is standardised and can be used at a system wide level. One of the more fruitful ways of doing this has been through the use of longitudinal study designs which include reliable special educational needs or disability markers. GUI fulfils some of this possibility, being longitudinal, though some issues with the reliability of the special educational needs markers were highlighted earlier.

There are also equity issues in relation to the identification of children with special educational needs and in the allocation of resources to children and schools (NCSE, 2013). Despite being passed by the legislature a decade ago key sections of the EPSEN Act (2004) have not been commenced including requirements in relation to individual education plans. Issues in relation to leadership for inclusive education, lack of coordination between health and education, school planning, teacher education, use of special needs assistants and disproportionality in identification with special educational needs have also been highlighted (Travers *et al*, 2010; Day & Travers, 2012; Griffin & Shevlin, 2011, Banks & McCoy, 2012).

1.6 How data from Growing Up In Ireland can inform the aims of the study

As noted in previous sections in this chapter, data from GUI has already been used to inform the area of special educational needs. The present study aims to build on existing research by firstly revisiting the classification of children that is possible on the basis of GUI data, and secondly, on the basis of this classification, to provide an in-depth description of children's outcomes, drawing on the framework developed by Douglas *et al* insofar as possible. Thirdly, we do not consider that examining outcomes in and of themselves is sufficient. Therefore, linking outcomes to children's individual, home, school, class and community characteristics in the context of their special educational needs forms the main focus of the results of the present study.

Since we are basing results on Wave I of the GUI nine-year-old cohort, there is merit in revisiting these outcomes on the basis of Wave II, when children are aged 13, in order to add robustness to the findings and build in a picture of progress over time.

2. Methodology

2.1 Overview of Growing Up In Ireland and how the data are used in the present study

This chapter does not provide a detailed description of the design, instrumentation and survey procedures of GUI. For these details, we refer readers to the technical documentation of the GUI research team (Murray *et al*, 2010).

2.1.1 Quantitative data

As noted in Chapter 1, the present study uses the Researcher's Microdata File (RMF) of the Wave I (nine-year-old) cohort from Growing Up In Ireland. The RMF contains additional data not available through the Anonymised Microdata File (AMF) that is readily available to researchers (through ISSDA). This quantitative dataset contains 8,568 records and data gathered from children, their parents, teachers, and school principals. The data include area-level indicators such as urban-rural community, and school-level indicators such as DEIS status. The GUI research team have created a sampling weight which, when applied to the data, results in estimates that are representative of the population of nine-year-old children in Ireland. This involved making adjustments on the basis of the study child's sex, family structure, parental age, socioeconomic status and educational attainment, ethnicity, social class, school type, region, and school disadvantaged status (Thornton *et al*, 2011). Throughout this report, we base results on weighted data. The study also included a qualitative component described at the end of this section.

The response rate for the quantitative part of the study, at 57 per cent, though acceptable was not as high as usually obtained in school-based surveys such as the National Assessments of Mathematics and English Reading where response rates ranged from 90-95 per cent (Eivers *et al*, 2010, pp24-25), and it is not possible to fully account for biases arising from non-response through the use of weights. Therefore, some caution should be exercised in interpreting the results, particularly when the survey was not explicitly designed to examine the outcomes of children with special educational needs. Nor was it designed explicitly to provide population-representative information on school and class characteristics as they relate to children's outcomes. In describing the sample for the Wave I child cohort, Murray *et al* (2010, Chapter 10) note that the survey sample was intended to provide reliable population estimates for nine-year-olds, sampled representatively by region. In all, 850 schools were sampled which entails a larger number of schools and a smaller number of pupils per school than would normally be used in studies whose aims include deriving reliable school- and class-level population estimates (e.g. Eivers *et al*, 2010).

A limitation of the GUI data to be borne in mind is that tests of statistical significance have not incorporated sampling error. Other large-scale surveys employ 'bootstrapping' techniques[9] to account for the fact that results are from a sample rather than a population (e.g. Eivers & Clerkin, 2012). A consequence of this in interpreting the GUI results is that statistical significance runs the risk of being over-stated (that is, inferring a statistically significant difference when there is not).

The main objective of analysing the outcomes of children in the present study is to compare those with and without special educational needs. We have classified the former into 12 groups. This classification is described in detail in the next section. Depending on the outcome measure, we use one of two statistical tests to see

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[9] This technique involves running analyses (such as the mean reading test scores for boys and girls) a large number of times, each time systematically dropping a small portion of the sample from the analyses. Results are then combined, and the differences between these estimates are incorporated as sampling error into the overall error in measurement.

whether the differences between the groups are statistically significant (that is, very unlikely to occur by chance). In the case of outcomes measured on a scale, for example reading test scores, we compare the groups using a one-way ANOVA (analysis of variance) which essentially compares the mean scores of each of the 12 SEN groups and the no-SEN group. Taking the latter as the reference group, we use post-hoc tests to ascertain whether the mean of each of the 12 SEN groups is significantly different from that of the no-SEN group.[10] In the case of categorical outcomes, for example being bullied which is measured in two groups or categories (bullied-not bullied), we use a chi-square test. This provides information on whether there is a statistically significant association between the outcome and its distribution across the SEN groups overall. Unlike the ANOVA, however, it does not allow us to say which specific SEN groups differ from the no-SEN group with any great precision. In Chapter 5, we use multiple regression techniques (that is, we examine the associations between SEN groups and the outcome while taking account of children's various background characteristics) to combine the results in Chapters 3 and 4. This is to help us understand the relative impact of various factors on the outcomes. The procedures used and guidelines for interpreting those results are presented at the beginning of Chapter 5.

One measure used in this study which merits explanation is the treatment of parents' occupation data to derive socioeconomic scores. The GUI dataset contains information on mothers' and fathers' present or prior occupations, which are coded using an in-depth coding frame, ISCO-2008 (International Standard Classification of Occupations, 2008 version; www.ilo.org). We have mapped these codes onto the International Socio-Economic Index (ISEI) scale, using methods developed by Ganzeboom and colleagues (see http://www.harryganzeboom.nl/ISCO08/index.htm. We did this for three reasons: first, the ISEI measure has been cross-validated in a number of countries, and provides a reliable estimate of individuals' SES in that the ISEI scale is an estimate of likely earnings, education / training and socioeconomic 'prestige' on the basis of occupational status; second, it takes both past and current occupation status into account, thereby reducing the amount of missing data; and third, it is a finer-grained continuous measure which allows for better discrimination between individuals (as opposed to broad occupational categories which are less precise).

2.1.2 Qualitative data

Within Wave I of the nine-year-old cohort, there is a nested qualitative study of 120 families. The families were invited to take part in the qualitative study after selection using stratified random sampling based on income, rural / urban location and family structure. SEN was not taken into account for the sampling of the qualitative study. Data for 117 families were deposited in the Irish Qualitative Data Archive (IQDA) through which the research team accessed the interviews. The GUI researchers employed a variety of methods during the interviews which took place during a single visit to their family home. These included the draw-and-write technique (Backett-Milburn & McKie, 1999) and visual prompts (Truby & Paxton, 2002) to help children to communicate and engage with the interview process. In total the children's interview protocol included more than 150 possible questions across six domains, with a shorter set for parents. Child interviews lasted 45 to 100 minutes, while considerable variation occurred in the length of child and parent interviews, depending on the engagement of the child / parent(s) and / or interruptions within the home environment.

More detail on the qualitative analysis techniques used in the present study is provided in Chapter 6.

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[10] We use the Bonferroni method for these comparisons: it is the most conservative method, that is the one least likely to give us a 'false positive' result, which is warranted, given the small numbers of children in some of the groups, and the fact that we have not taken sampling error into account.

2.2 Classification of special educational needs in the present study

2.2.1 Overview

The value of this study's analyses on educational experiences and outcomes of children with special educational needs depends, in the first instance, on the validity of the SEN classification system. In developing it, we have attempted to establish a system that makes maximum use of available data, is sufficiently detailed to reflect the complexity of SEN, and which maps in a meaningful way onto the existing systems used to identify children and allocate resources to them.

Establishing the classification consisted of three stages. First, we identified children according to eight broad groups. Second, we examined the percentages of children with single and multiple special educational needs on the basis of the eight groups. Third, since many children fall into more than one of the eight initially-identified groups, we developed a final classification scheme consisting of 12 categories. The combined scheme forms the basis of most of the analyses in the study.

It is important to bear in mind that the Growing Up In Ireland study was not explicitly designed to facilitate this kind of classification. Some limitations in this regard are noted as we describe the classification. All numbers and percentages of children are weighted.

The eight major groups we sought initially to identify and classify are children with:

1. A physical or sensory disability.
2. A social, emotional or behavioural disability or difficulty (SEBD), medium risk.
3. A social, emotional or behavioural disability or difficulty (SEBD), high risk.
4. A general learning disability (GLD).
5. Autistic spectrum disorders and Asperger's syndrome (ASD).
6. Speech and language difficulty (SLD).
7. A specific learning disability (dyslexia).
8. Other specific learning disability.

Note that these eight groups are not mutually exclusive in that children could fall into more than one category.

2.2.2 Children with a physical or sensory disability and / or dyspraxia

This first group (250 in all, or 2.9 per cent of all children) was identified on the basis of teacher reports of the child having a physical disability or visual or hearing impairment that affects learning. Teachers were not asked to provide responses to each type of impairment separately. We also included children identified as having dyspraxia on the basis of parent reports. The inclusion of dyspraxia in this group is not unproblematic; ideally these children would have been in a separate group for analysis. However, the number of children with dyspraxia was small (73, or 0.9 per cent of all children). In most cases, the condition co-occurred with other SEN (62 of the 73 children were so classified), so it was decided to combine them with physical and sensory disabilities[11].

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[11] It is difficult to establish where dyspraxia may best sit in our classification scheme; another possibility, for example, would have been to group children with dyspraxia together with children with dyslexia; there is also evidence for comorbidity of ADHD, ASD and dyspraxia (Pauc, 2005).

In cross-referencing this group with parent responses to questions that asked separately about physical, visual and hearing difficulties, and the presence of a chronic illness or disease (with some parents selecting more than one type of difficulty), we found that, of the 250 children:

- 37 per cent (92) of those with a physical or sensory disability or dyspraxia had a visual impairment.
- 17 per cent (43) had a hearing impairment.
- 12 per cent (29) had difficulties with mobility.
- 32 per cent (79) had a chronic illness or disease.
- 11.5 per cent (29) were unspecified.

Many have multiple physical or sensory disabilities / dyspraxia and / or chronic illnesses or diseases: While about 48.5 per cent of the 250 children were classified as having one of the five conditions above, 34.5 per cent were classified with two, and 5.5 per cent with three or four (with the remaining 11.5 per cent unspecified, as noted above).

Given the small numbers in each group and the overlaps between them, we have retained the broad overall classification of physical or sensory disability and / or dyspraxia for analysis purposes, noting that within this group, variation in individual children's needs is considerable.

2.2.3 Children with a social, emotional or behavioural difficulty or disorder, medium and high risk

The GUI dataset does not include data from any questions that asked specifically about the presence of SEBD[12] in children. Therefore, we based our classification of children with medium risk SEBD (the second group) and high risk SEBD (the third group) on teachers' and parents' responses to the SDQ (Strengths and Difficulties Questionnaire). Higher scores on the SDQ indicate higher levels of difficulty. Children were grouped on the basis of UK-normed borderline (medium risk) and abnormal (high risk) cut-points on the SDQ.

It is important to note that the SDQ is primarily used as an initial clinical screening instrument for subsequent diagnosis of a variety of psychological and psychiatric disorders, though it has been developed for use by researchers, clinicians, and educationalists (Goodman, 1997). Furthermore, while the SDQ includes an impact subscale which measures the extent to which the individual's overall well-being, peer relationships and learning are judged to be affected by the presence or absence of various emotional and behavioural characteristics, this subscale was not included in the GUI study. This puts limitations on the extent to which we can infer that a high score on the SDQ affects children's learning and other outcomes.

However, an advantage to the GUI dataset is that the SDQ was administered to both teachers and parents of the children. Existing research has shown that that the SDQ is more reliable on the basis of data from multiple informants than reports from single informants, at least in the detection of psychological and psychiatric disorders (see Appendix 1). Given also that teacher reports have been shown to be more reliable than parents' (Appendix 1; Banks & McCoy, 2011), we use the teacher-reported SDQ data as our primary source of information, supplementing it with the parent-reported SDQ data. In doing so, we are seeking to strike a balance between over-identifying SEBD on one hand, and failing to identify it on the other. Using teacher reports as the primary source of information is supported by other studies, though it may result in an under-estimate of internalising behaviours (Goodman *et al*, 2000).

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[12] Under the current DES resource allocation the acronym SEBD means severe emotional behavioural disorder, which is not the same as social, emotional or behavioural difficulties used here. However it is worth noting that social emotional behavioural difficulties is a term used by DES / NEPS in the continuum of support guidelines.

Appendix 1 provides some additional details on the SDQ and further explains the rationale for combining the teacher and parent reports as shown in Table 2.1.

Table 2.1. Classification of children into low or no risk, medium risk and high risk SEBD groups based on teacher / parent reports on the SDQ

Teacher report	Parent report	Final classification
Normal	Normal	Normal (low or no risk)
Borderline	Borderline	Borderline (medium risk)
Abnormal	Abnormal	Abnormal (high risk)
Normal	Borderline	Normal (low or no risk)
Borderline	Normal	Borderline (medium risk)
Abnormal	Normal	Abnormal (high risk)
Normal	Abnormal	Borderline (medium risk)
Borderline	Abnormal	Borderline (medium risk)
Abnormal	Borderline	Abnormal (high risk)

Table 2.2 shows the distribution of children across the three SEBD groups on the basis of teacher reports only, parent reports only, and teacher and parent reports combined in the manner shown in Table 2.1.

Table 2.2. Distribution of children across no risk, medium risk and high risk SEBD groups based on teacher and parent reports on the SDQ, on their combined reports, and including children with ADHD

Classification	Teacher report only		Parent report only		Teacher and parent report combined		Teacher and parent report combined, with ADHD	
	N	%	N	%	N	%	N	%
Normal (low or no risk)	7334	85.6	7306	85.3	7002	81.7	6993	81.6
Borderline (medium risk)	600	7.0	653	7.6	931	10.9	940	11.0
Abnormal (high risk)	635	7.4	609	7.1	635	7.4	635	7.4

In a second step to identifying children with SEBD, we included children who have ADHD formally diagnosed (taken from parent reports of diagnosis). Those who were diagnosed with ADHD were placed in the medium-risk group if they were not already in the medium- or high-risk groups. The last column of Table 2.2 shows the numbers of children in each SEBD group, once ADHD diagnoses have been taken into account. In total, 116 children were diagnosed with ADHD, and all but nine already identified as being in the medium- or high-risk SEBD groups (that is, 39 as medium-risk and 68 as high-risk).

2.2.4 Children with a general learning disability or difficulty

The GUI dataset did not include data from questions that asked specifically about a general learning disability or difficulty, so this had to be inferred from available data. The number of children with a general learning disability was based initially on teacher responses to a question asking them to indicate whether the child had a learning disability that affects the amount of activity he or she can do at school and / or whether parents indicated that the child had been diagnosed with a difficulty or disability that caused them to have difficulty in making progress in school.

In total, 971 children (just over 11 per cent) were identified as having a learning difficulty on this basis. However, a majority of these children (564) were also identified (by parents) as having a specific learning difficulty (dyslexia, speech and language disorder, and / or other specific learning disability), so those children were omitted from this group in order to isolate those children with a general learning disability[13]. Once these children were omitted from the 971, we are left with 407 children, or just under 5 per cent of the total sample, with a general learning disability. Unfortunately, it is not possible to distinguish between mild, moderate and severe forms of general learning disabilities, so children in this group are likely to have a broad range of needs. Furthermore, this estimate of 407 (around 5 per cent) is higher than one might expect on the basis of other prevalence studies of SEN (NCSE, 2006a, pp66-67). Therefore, the estimate of 4.8 per cent is likely to include some children with milder learning difficulties who have not been diagnosed with either a general or specific learning disability and for this reason our use of the term 'GLD' includes difficulty as well as disability.

2.2.5 Children with autistic spectrum disorders or Asperger's syndrome

The number of children with autism / autistic spectrum disorders or Asperger's syndrome was based on parents' reports of specific diagnoses of these conditions[14]. In total, 69 children or just under 1 per cent of the sample were classified as having an autistic spectrum disorder or Asperger's syndrome. Of this group, all but three children were also identified as having another special educational need. Specifically, 26 were identified as having medium-risk SEBD, 34 with high-risk SEBD, 13 with a general learning disability, 26 with a speech and language disorder, nine with dyslexia, and 12 with another SEN or SENs.

2.2.6 Children with dyslexia, speech and language disorders, and / or another specific learning disability

Children in each of these three groups were identified on the basis of parents' reports of the child being diagnosed with dyslexia, a speech and language disorder, and / or another specific learning disability. About 4 per cent of children fall into each of these three groups, covering 1,010 children in all[15] (361 or 4.2 per cent with dyslexia, 3.7 per cent or 317 with a speech and language disorder, and 3.9 per cent or 332 with another specific learning disability[16]).

2.2.7 Overall prevalence of SEN occurring singly and in combination

Weighted estimates of the percentages of children with each special educational need as described above, occurring both singly and in combination, are shown in Table 2.3.

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[13] It is possible, of course, that general and specific learning difficulties or disabilities can coexist, but in the absence of more detailed information, this was felt to be the most sensible approach.

[14] Teachers were not asked to identify children with ASD, so it is not clear where teachers would have placed this group in response to the questions they were asked in the GUI survey.

[15] The 564 children referred to in Section 2.2.4 on GLD comprise a subset of these 1,060 children.

[16] Of the 332 children with another specific learning disability, just 11 were identified as having dyspraxia.

Table 2.3. Prevalence of SEN occurring singly and in combination on the basis of eight broad groups

Category	Children with this SEN only		Children with this SEN plus other(s)	
	N	%	N	%
Physical or sensory disability including dyspraxia	68	0.8	182	2.1
Social, emotional or behavioural difficulty / ADHD – medium risk	619	7.2	321	3.7
Social, emotional or behavioural difficulty / ADHD – high risk	371	4.3	264	3.1
General learning disability	246	2.9	161	1.9
Autistic spectrum disorder or Asperger's syndrome	3	<0.1	66	0.8
Speech and language disorder	77	0.9	237	2.8
Specific learning disability (dyslexia)	171	2.0	190	2.2
Other specific learning disability	119	1.4	213	2.5

Table 2.4 shows the distribution of SEN per child and indicates that the overall prevalence rate is estimated at 27.8 per cent. It also shows that about 30 per cent of children with special educational needs, or 8 per cent of all children, have more than one SEN.

Table 2.4. Distribution of the number of SEN

	N	% of all children	% of children with SEN
None	6187	72.2	
One or more kinds of SEN:	*2381*	*27.8*	*100.0*
One	1674	19.5	70.3
Two	539	6.3	22.6
Three	124	1.4	5.2
Four or more	44	0.5	1.9
Total	8568	100.0	

2.2.8 Prevalence of children on the detailed classification scheme

Table 2.5 shows the 12 categories established for analysis on the basis of an examination of how each of the SEN groups shown in Table 2.3 occur singly and in combination.

Table 2.5. Distribution of SEN by detailed 12-group categorisation

Category	N	% of all children (N=8568)	% of children with SENs (N=2381)
Medium risk SEBD only	619	7.2	26.0
High risk SEBD only	371	4.3	15.6
GLD only	246	2.9	10.3
GLD with medium or high risk SEBD	125	1.5	5.2
Dyslexia (including 15 cases with another specific SEN)	187	2.2	7.9
Dyslexia with medium or high risk SEBD	100	1.2	4.2
Speech and language disorder (including 24 cases with another specific SEN	101	1.2	4.2
Speech and language disorder with medium or high risk SEBD	91	1.1	3.8
Autistic spectrum disorder or Asperger's syndrome (66 of these also having another SEN or SENs)	69	0.8	2.9
Physical or sensory disability only	68	0.8	2.9
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	158	1.8	6.6
Other SEN	246	2.9	10.3
Any SEN	2381	27.8	100.0
No SEN	6187	72.2	

It was necessary to do this since, as shown in Table 2.4, many children have multiple special educational needs and analyses on the basis of the groups shown in Table 2.3, assuming groups are mutually exclusive, would not be an appropriate reflection of the complex and varied experiences and needs of these children.

The 246 children under 'other SEN' in Table 2.5 do not readily 'fit' under the other 11 categories. This group comprises 119 children with an unspecified specific learning disability or difficulty (48.2 per cent of the group), 90 children (36.8 per cent) with an unspecified specific learning disability and SEBD, and 37 children (the remaining 15 per cent) with multiple SEN that do not readily fall under the other 11 categories.

Given the estimated prevalence rate of 27.8 per cent (Table 2.4) and the 7.2 per cent of children classified as having medium-risk SEBD only (Table 2.5), a more conservative estimate of prevalence could be 20.6 per cent (27.8-7.2). However, for the purposes of the present study, we include medium-risk SEBD children in our SEN group since it will be shown that they have significant needs; furthermore, follow-up analyses with Wave II of the GUI data when these children are aged 13 will provide additional insights into how this group fares over time.

Table 2.6 shows a slightly simplified categorisation where the 12 groups are split into six 'major' groups. However the main focus in the present study is on the more detailed 12-group classification shown in Table 2.5.

Table 2.6. Distribution of SEN by less detailed six-group categorisation

Category	N	% of all children (N=8568)	% of children with SEN (N=2381)
No SEN	6187	72.2	
SEBD group	990	11.6	41.6
GLD group	371	4.3	15.6
SLD group	479	5.6	20.1
ASD group	69	0.8	2.9
Physical SEN group	226	2.6	9.5
Other SEN group	246	2.9	10.3

2.3 Analysis framework

2.3.1 Overview

The overall approach used in this study is guided by recent contextual frameworks from large-scale international assessments of education (that is, frameworks for PISA 2012[17], TIMSS 2011[18], and PIRLS 2011[19]), while the classification of outcomes is guided by the work of Douglas *et al* (2012).

Our classification of outcomes and background measures begins at the most general level, becoming increasingly detailed. At the first step, we distinguish between background measures and outcome measures. As guiding principles, we have selected measures on the basis of their match to the terms of reference (Chapter 1, Section 1.1), policy relevance and potential to inform equity issues, measurement properties (e.g. validity and reliability), and overall data quality (e.g. low rates of missing data).

Background measures capture aspects of the individual child and his or her life at home, at school and in the community which may be relevant for considering the outcomes. These may be further classed along two dimensions: their immediate proximity to the child's day-to-day experiences, and whether or not these contexts may be regarded as more fixed or more fluid.

- In terms of proximity, we distinguish between individual child, family, class, school and community characteristics.
- In terms of fixedness/fluidity, characteristics can also be grouped according to whether they are demographic, socioeconomic, educational, or interpersonal.

In many cases it is difficult to apply strict divisions between these themes.

Outcome measures have been classified as relating to engagement and attendance, attainment, happiness and independence (see Douglas *et al*, 2012). A further group of outcomes – progress – is not covered in this framework. Progress is defined by Douglas *et al* (2012) as 'change over time regarding educational outcomes and engagement' (p14). Wave I of the GUI data does not capture progress, although data from Wave II when combined with Wave I will be relevant to this outcome.

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[17] http://www.oecd.org/pisa/pisaproducts/PISA%202012%20framework%20e-book_final.pdf

[18] http://timssandpirls.bc.edu/timss2011/frameworks.html

[19] http://timssandpirls.bc.edu/pirls2011/framework.html

2.3.2 Outcomes examined and their location within Douglas *et al*'s framework

On the basis of Douglas *et al* (2012), we have identified the following outcomes in the GUI dataset (see also Figure 2.1):

- **Engagement and attendance:** The framework for outcomes of children with special educational needs includes early school leaving ('dropout') under attendance (Douglas *et al*, 2012); however, this measure is not relevant to the nine-year-olds in GUI and so attendance is restricted to a measure of the numbers of days of school missed (both teacher and parent reports). We also include children's attitudes towards school and liking of school subjects.
- **Attainment / achievement:** At age nine, this mainly refers to achievement (Douglas *et al*, 2012). The achievement measures included in the study are the Drumcondra reading and mathematics test scores, and parental and teachers' ratings of children's performance in reading and mathematics (and in other areas including creativity and problem-solving on the part of teachers). We also include a prospective measure of educational attainment in the form of parents' educational expectations for their child. Generally in this report, we use the terms 'achievement' or 'performance' to refer to reading and mathematics test scores, while the word 'attainment' refers to general level of education completed (e.g. upper second-level, third level degree).
- **Happiness/well-being:** The Piers-Harris scale and subscales are used to inform this outcome area (Piers & Herzberg, 2007). Other happiness- and well-being-related measures are included, such as levels of physical activity, bullying, number of close friends, and socialising with friends.
- **Independence:** This group of measures is more relevant to older children and adults (e.g. employment, independent living; Douglas *et al*, 2012) so we are somewhat limited in the independence measures available. Three are included: the child's level of dependence on his or her caregiver(s) (reported by parents; Pianta, 1992), child-reported participation in self-care tasks (e.g. washing), and child-reported participation in household tasks (e.g. helping with housework).

Figure 2.1. Categories of outcome variables

2.3.3 Background measures

Background measures are broadly classified into six groups, described in turn below. An important limitation of the GUI data is that it is not well-positioned to inform us about school- and class- or teacher-level practices and processes. This should be borne in mind as a significant part of the 'jigsaw' that is not examined in the present study.

- **Individual and family demographics:** More or less fixed features of groups of individuals and households or families. Examples include the child's gender and country of birth, and family structure and size. These measures are drawn from the primary caregiver and child questionnaires.
- **Individual and family socioeconomic features:** Both social and economic characteristics of the children's parents or household. Examples include parental education and occupation, and levels of financial stress experienced by members of the child's household. Again, these measures are mainly drawn from the primary caregiver and child questionnaires.
- **Individual relationships and interactions:** Processes of interaction between the child and other people in his or her environment. Examples include levels of basic care and the number of close friends that the child has. Also taken from the primary caregiver and child questionnaires.
- **Individual educational interactions and environment:** Characteristics and processes related to the child's educational activities. Examples include home educational environment (such as books in the home, having a TV in the child's bedroom), and parental involvement in the child's homework. Taken from primary caregiver and child questionnaires.
- **School / class environment:** Features of the schools and classrooms of children, which may be further classified as structural (e.g. school size) or socioeconomic (e.g. DEIS status). These measures are based on teacher and principal responses to the questionnaires (while DEIS is a school-level indicator included in the GUI database by the GUI research team).
- **Community environment and resources:** Characteristics of the community in which the child lives. These include the perceived levels of safety and child-relevant resources in the local community. Taken from the primary caregiver questionnaires.

Figure 2.2 provides a visual representation of the classification of background variables. Table 2.7 lists the groups of measures examined, showing examples of each.

Figure 2.2. Categories of background variables

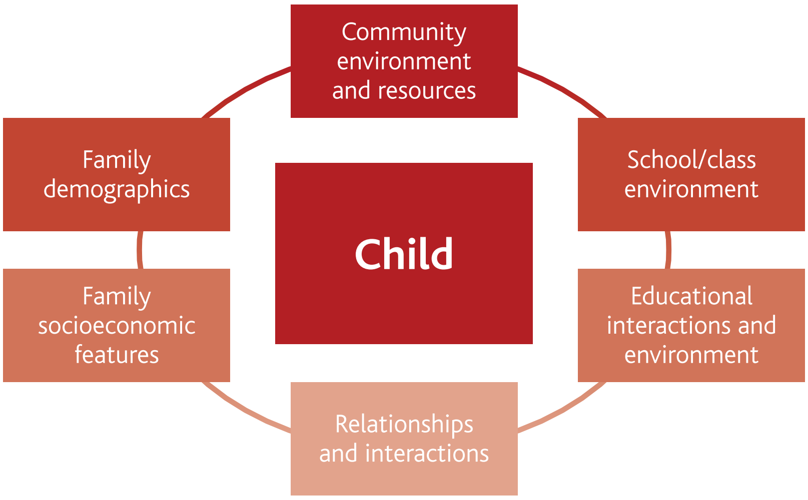

Table 2.7. Examples of measures examined in the present study

Group	Sub-group	Examples of variables
Outcome	Attainment / achievement	Drumcondra reading and mathematics scores Teacher's rating of reading Teacher's rating of writing Parental educational expectation for child
Outcome	Engagement and attendance	Liking of school Frequency of absence from school
Outcome	Happiness / well-being	Child report of bullying Parent report of bullying Piers-Harris scale and subscales
Outcome	Independence	Frequency of completing self-care activities Frequency of participating in household tasks Pianta parent-child independence scale
Outcome	Progress	Not measured
Individual and family demographics		Household size Single parent household Gender of child Language spoken at home
Individual and family socioeconomic features	Social	Parental occupation Parental education
Individual and family socioeconomic features	Economic	Level of perceived financial stress % of household income from social welfare
Individual educational interactions and environment		Entertainment systems in child's bedroom Number of children's books at home Frequency of parental help with homework
Individual relationships and interactions		Extent to which child shows signs of lack of basic care Primary caregiver depression (CES-D)
School / class environment	Social and educational	Percentage of children with literacy and numeracy problems Percentage of children with SEN
School / class environment	Socioeconomic	DEIS status of school
Community environment and resources		Child-relevant resources in local community Safety of local community

2.3.4 Stages in the analysis

Chapter 3 examines the outcomes of children on the basis of the SEN classification described earlier in this chapter, while Chapter 4 examines individual, class, school and community characteristics across the 12 SEN groups. Chapter 5 draws the results presented in Chapters 3 and 4 together by selecting nine key outcomes and a sub-set of background characteristics, and examining the extent SEN groups differ on the nine outcomes before and after taking account of their background characteristics.

3. Outcomes for Children with Special Educational Needs

3.1 Introduction

This chapter describes the outcomes of children compared across the SEN groups, (classified according to Section 2.2 in Chapter 2). First, educational performance is explored; second, we examine school engagement and attendance; third, we explore measures of happiness and well-being; finally, we look at measures of children's independence. The objective of this chapter is to explore children's outcomes and how they vary by kinds of SEN, with a particular focus on identifying groups of children with special educational needs who significantly vary both in comparison to children without such needs and to other groups of children who do. A summary of the main findings is provided at the end of each main section. Readers are referred to Section 2.1 in Chapter 2 for information on the analysis methods used in this chapter.

3.2 Educational performance

This section looks at the educational achievement of groups of children with special educational needs on the Drumcondra reading and mathematics tests, examining the mean and distribution of scores across groups of these children. Teacher and parent ratings of academic performance on several aspects of learning are also explored[20]. Then, parental expectations for their child's further education are described.

3.2.1 Drumcondra reading and mathematics scores

Table 3.1 shows the numbers of children with Drumcondra reading and mathematics test scores for all children and by SEN group. Across all children, 2.7 per cent are missing reading scores, and 1.8 per cent are missing mathematics scores. In all, 228 children had no reading scores, and 151 children had no mathematics scores. The GUI documentation does not include information on why these children have no test scores. They may have been exempt from the assessment due to SEN or language reasons, or were simply absent on the day. In two groups, ASD and physical or sensory disability with SEBD and / or other SEN, rates of missing achievement data (due to absences or exemptions) are considerably higher (18-20 per cent and 15-16 per cent respectively), so the results of these two groups are less reliable than for the other groups.

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[20] Children were also asked about their own perception of how they were doing in school; a vast majority rated themselves as doing OK or well in their school work, and as such are not included here.

Table 3.1. Numbers and percentages of children with and without Drumcondra reading and mathematics scores, by SEN group / all children

SEN Group	With reading scores		Without reading scores		With mathematics scores		Without mathematics scores	
	N	%	N	%	N	%	N	%
No SEN	6066	98.0	121	2.0	6123	99.0	64	1.0
Any SEN	2273	95.5	107	4.4	2294	96.3	87	3.7
Of those with any SEN…								
Medium risk SEBD	610	98.5	9	1.5	613	99.0	6	1.0
High risk SEBD	359	96.8	12	3.2	361	97.5	9	2.5
GLD	237	96.4	9	3.6	244	99.2	2	0.8
GLD with medium or high risk SEBD	119	95.0	6	5.0	121	96.9	4	3.1
Dyslexia	178	95.3	9	4.7	180	96.3	7	3.7
Dyslexia with medium or high risk SEBD	97	96.4	4	3.6	97	96.4	4	3.6
Speech and language disorder	99	98.2	2	1.8	98	97.3	3	2.7
Speech and language disorder with medium or high risk SEBD	83	92.0	7	8.0	85	93.6	6	6.4
Autistic spectrum disorder or Asperger's syndrome	57	82.3	12	17.7	55	79.8	14	20.2
Physical or sensory disability	67	97.8	1	2.2	67	97.8	1	2.2
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	132	83.6	26	16.4	134	84.8	24	15.2
Other SEN	236	95.8	10	4.2	239	97.0	7	3.0
All children	8340	97.3	228	2.7	8417	98.2	151	1.8

Children took Level 2, 3 or 4 of the reading test, depending which class they were in at the time of the survey. Most children (59 per cent) took Level 3, while 34 per cent took Level 2 and 7 per cent took Level 4. The test consists of 36-40 questions, depending on the form. All are from the vocabulary part of the full form of the Drumcondra reading test, and assess basic reading comprehension (Murray *et al*, 2010).

Children also took Levels 2, 3 or 4 of the mathematics test, which consists of 25-30 questions in the curriculum strand areas of number, algebra, data and measures. There are some variations across forms in distribution of items across content strands, but across all, most items assess number. As with reading, 59 per cent took Level 3, while 34 per cent took Level 2, and 7 per cent took Level 4. Prior to analysis, the reading and mathematics scores were adjusted so that results are comparable across class levels (Murray *et al*, 2010).

For the purposes of our study, mean scores of all children were standardised to have an overall mean score of 100 and a standard deviation of 15. This allows us to compare score differences on a measurement scale familiar to many teachers and policymakers. It also allows us to compare score differences in reading directly with score differences in mathematics.

Table 3.2 displays the mean scores of all children, those without special needs and those in each SEN group in the Drumcondra reading and mathematics tests. The table shows that children without special educational needs have a mean score on both reading (103.1) and mathematics (102.9) that is around ten points or two-thirds of a standard deviation higher than children with any special educational needs (who scored 91.8 on reading, and 92.3 on mathematics, on average). Looking separately at the 12 SEN groups (that is, from the fourth to the second last row in the table), there is considerable variation in mean reading and mathematics scores, which range from 82.5 to 104.5 for reading, and 81.5 to 101.1 for mathematics. The scores of the SEN groups significantly lower than those of children without special educational needs are marked in bold in the table.

Children with GLD[21] and SEBD, SLD and SEBD, dyslexia and SEBD, and children with other special educational needs have considerably lower mean scores (that is, more than one standard deviation below the overall mean) on the reading test than children without special educational needs. A further three groups (GLD, dyslexia, and a physical or sensory disability with SEBD and / or other SEN) have mean reading scores about three-quarters of a standard deviation below the mean. On the other hand, children with a physical or sensory disability and with ASD had mean reading scores not significantly different to those of children without special educational needs.

The standard deviations (SD) indicate how much the scores of children within a group vary on the reading and mathematics tests. A small standard deviation means the results of individual children tend to be close to the mean, while a larger standard deviation means the results are further spread out from the mean. For example, the standard deviations for reading show relatively low variation among children with GLD, GLD and SEBD, and dyslexia and SEBD (SD = 10.2-11.3); in contrast, there is wide variation in the mean scores of children with ASD (SD = 19.7).

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[21] Recall that our classification of children with GLD covers children with mild, moderate and severe general learning disabilities and difficulties.

Table 3.2. Drumcondra reading and mathematics scores, by SEN group

Category	Reading		Mathematics	
	M	SD	M	SD
No SEN	103.09	13.61	102.87	13.95
Any SEN	91.75	15.41	92.33	15.00
Of those with any SEN…				
Medium risk SEBD only	**98.07**	15.18	**96.87**	14.33
High risk SEBD only	**97.88**	15.08	**96.88**	13.87
GLD (including some cases with another SEN)	**85.51**	11.28	**87.95**	12.29
GLD with medium or high risk SEBD	**82.54**	10.22	**85.92**	14.56
Dyslexia (including some cases with another SEN)	**87.15**	13.15	**92.54**	14.48
Dyslexia with medium or high risk SEBD	**83.92**	10.50	**88.91**	13.49
Speech and language disorder (including some cases with another SEN)	**92.47**	13.86	**94.59**	17.13
Speech and language disorder with medium or high risk SEBD	**83.53**	12.49	**81.46**	14.34
Autistic spectrum disorder or Asperger's syndrome	97.22	19.69	**93.91**	16.90
Physical or sensory disability only	104.48	14.32	101.14	12.91
Physical or sensory disability with medium or high risk SEBD and / or other SEN	**87.73**	15.40	**86.63**	14.87
Other special needs	**83.61**	12.06	**86.06**	13.31
All children	100.00	15.00	100.00	15.00

Significant differences (SEN groups compared to the no-SEN group) are in bold.

Scores for mathematics follow the same general pattern as reading, though it is worth noting that children with dyslexia did better on the mathematics test than on the reading test (Table 3.2).

Table 3.3 examines the distribution of scores on the Drumcondra reading test by SEN group. Reading scores in the table below are grouped in units of 15 (one standard deviation) in terms of their distance from the mean (100). Scores ranging from 92.5-107.5 are within half a standard deviation of the mean, the 77.5-92.4 and 107.6-122.5 groups are 1.5 standard deviations from the mean and the '77.4 or less' and '122.6 or more' groups are more than 1.5 standard deviations from the mean. Broadly speaking, as distance from the mean increases, that is a higher number of standard deviations from the mean score of 100, a decreasing percentage of children should be observed. Across all children (the bottom row of the table), about 36 per cent score within one standard deviation of the mean, 25 per cent score between 0.5 and 1.5 standard deviations above the mean, and 7 per cent more than 1.5 standard deviations above the mean (with equivalent percentages below the mean). This information adds to that shown in Table 3.2 as it allows us to compare the percentages of very low and very high scores across the different groups, in addition to the average. So for example over five times as many children with special educational needs (17.7 per cent) had a score more than 1.5 standard deviations below the mean on reading compared to those without such needs (3.3 per cent).

Table 3.3. Distribution of Drumcondra reading scores, by SEN group

SEN group	Reading score				
	77.4 or less (more than 1.5 SD below mean)	**77.5-92.4** (0.5-1.5 SD below mean)	**92.5-107.5** (within 1 SD of mean)	**107.6-122.5** (0.5-1.5 SD above mean)	**122.6 or higher** (more than 1.5 SD above mean)
No SEN	3.3%	18.5%	40.1%	29.6%	8.5%
Any SEN	17.7%	39.3%	25.8%	13.8%	3.4%
Of those with any SEN…					
Medium risk SEBD only	7.7%	32.1%	31.8%	24.4%	4.0%
High risk SEBD only	7.6%	31.3%	35.9%	17.6%	7.7%
GLD (including some cases with another SEN)	26.0%	48.0%	23.3%	2.6%	0.2%
GLD with medium or high risk SEBD	23.1%	62.3%	13.5%	0.6%	0.6%
Dyslexia (including some cases with another SEN)	23.2%	43.8%	23.6%	9.3%	0.1%
Dyslexia with medium or high risk SEBD	30.4%	51.9%	14.1%	3.6%	0.0%
Speech and Language disorder (including some cases with another SEN)	15.4%	35.3%	34.9%	13.1%	1.4%
Speech and language disorder with medium or high risk SEBD	30.9%	57.5%	5.0%	4.2%	2.3%
Autistic spectrum disorder or Asperger's syndrome	16.7%	31.6%	16.2%	23.2%	12.3%
Physical or sensory disability only	4.4%	13.6%	37.3%	32.4%	12.3%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	27.7%	35.8%	23.7%	11.8%	0.9%
Other SEN	34.0%	47.4%	14.3%	3.0%	1.4%
All children	7.2%	24.2%	36.2%	25.3%	7.1%

As can be seen from Table 3.3 and Figure 3.1 below, the distribution of reading scores varies substantially and significantly by SEN group (χ^2=1695.648, df=48, p<.001). Groups with the highest percentages of low reading scores are children with GLD and GLD with SEBD, dyslexia and dyslexia with SEBD, SLD with SEBD and a physical or sensory disability with SEBD and / or other SEN. Also, one-third of children with other special educational needs scored 77.4 or less (more than 1.5 standard deviations below the mean) compared to 3 per cent of those without such needs. Children with a physical or sensory disability, medium risk SEBD and high risk SEBD had the lowest percentages with low reading scores. Children with physical or sensory disability and with ASD were more likely to score 122.6 or more (more than 1.5 standard deviations above the mean) on the reading test than children without a special educational need. As with Table 3.2, this reflects a very broad range of reading proficiency across the SEN groups. It is worth noting that 7.7 per cent of children with high risk SEBD scored above 1.5 standard deviations above the reading mean, which is very similar to the percentage of children without special educational needs (8.5 per cent), and indicates that a substantial minority of these children have high reading proficiency. Similarly, about one in eight children with ASD (12.3 per cent) achieved high reading scores (though the number in this group is quite small).

Figure 3.1. Distribution of Drumcondra reading scores, by SEN needs group

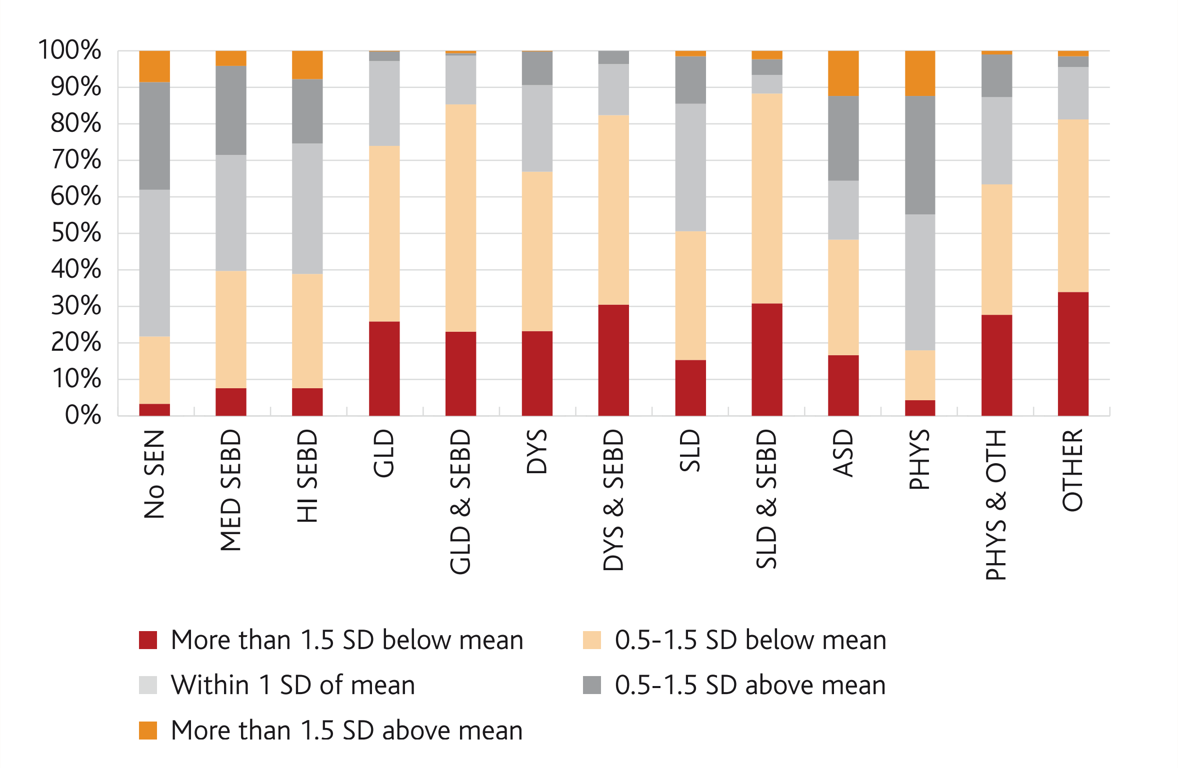
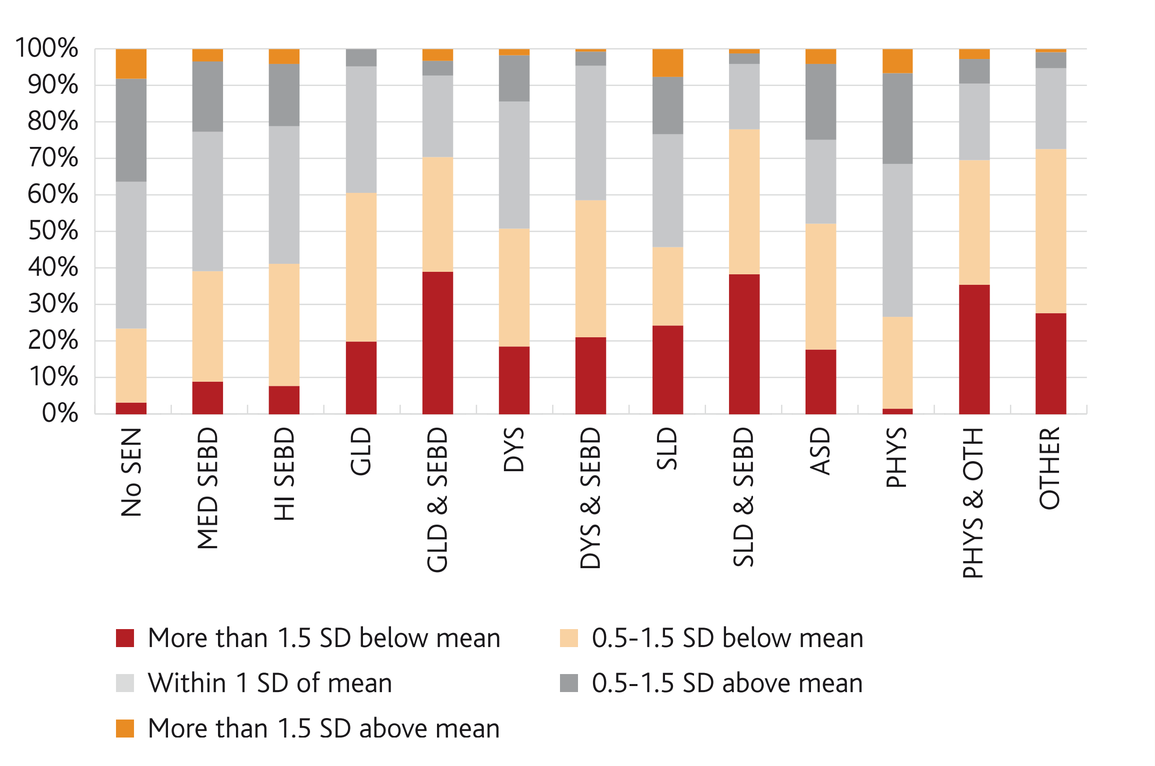


Table 3.4 and Figure 3.2 show the distribution of Drumcondra mathematics scores by SEN group. The results can be interpreted in a similar way as those for reading shown in Table 3.3 and Figure 3.1 above. The distribution pattern of scores is broadly similar to that of the reading scores, again with considerable variation between and within groups of children with special educational needs. The variation between SEN groups is large and significant (χ^2=1375.662, df=48, p<.001). In contrast to reading, though, there are fewer high mathematics achievers among children with high risk SEBD and ASD. A greater proportion of children with special educational needs have low mathematics scores than those without. Almost eight out of ten children with SLD and SEBD scored 92.4 or less on the mathematics test compared to one-quarter of children with a physical or sensory disability, and four out of ten children with medium or high risk SEBD.

Table 3.4. Distribution of Drumcondra mathematics scores, by SEN group

SEN group	Mathematics score				
	77.4 or less (more than 1.5 SD below mean)	**77.5-92.4** (0.5-1.5 SD below mean)	**92.5-107.5** (within 1 SD of mean)	**107.6-122.5** (0.5-1.5 SD above mean)	**122.6 or higher** (more than 1.5 SD above mean)
No SEN	3.2%	20.3%	40.2%	28.1%	8.2%
Any SEN	18.0%	34.1%	32.5%	12.6%	2.7%
Of those with any SEN…					
Medium risk SEBD only	8.9%	30.3%	38.1%	19.3%	3.3%
High risk SEBD only	7.7%	33.6%	37.6%	17.0%	4.0%
GLD (including some cases with another SEN)	19.9%	40.8%	34.6%	4.7%	0.0%
GLD with medium or high risk SEBD	39.1%	31.4%	22.3%	4.0%	3.1%
Dyslexia (including some cases with another SEN)	18.5%	32.3%	34.8%	12.8%	1.6%
Dyslexia with medium or high risk SEBD	21.2%	37.5%	36.7%	3.9%	0.7%
Speech and language disorder (including some cases with another SEN)	24.4%	21.4%	30.9%	15.7%	7.7%
Speech and language disorder with medium or high risk SEBD	38.3%	39.8%	17.9%	3.0%	1.1%
Autistic spectrum disorder or Asperger's syndrome	17.7%	34.5%	23.1%	20.8%	4.0%
Physical or sensory disability only	1.5%	25.3%	41.9%	24.7%	6.6%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	35.6%	34.1%	21.0%	6.8%	2.6%
Other SEN	27.8%	44.9%	22.0%	4.5%	0.7%
All children	7.3%	24.1%	38.1%	23.8%	6.7%

Figure 3.2. Distribution of Drumcondra mathematics scores, by SEN group



Differences exist in the distributions of performance in reading and mathematics across some SEN groups. Looking at the percentages of children with scores more than 1.5 standard deviations below the mean in reading and mathematics, proportionately more children with GLD and SEBD, SLD, and SLD with SEBD had low mathematics than reading scores (that is, were weaker in mathematics than reading). On the other hand, higher percentages of children with GLD and dyslexia with SEBD had lower reading than mathematics scores (or were weaker in reading than mathematics).

To sum up, then, an analysis of children's reading and mathematics scores shows that:

- Children with special educational needs have mean scores in both reading and mathematics that are about two-thirds of a standard deviation lower than those without.
- In reading and mathematics, wide variation is evident in the reading and mathematics proficiencies demonstrated by children in the 12 SEN groups. For example, children with SEBD combined with GLD, SLD, or dyslexia and SEBD have considerably lower mean scores than children without special educational needs. In contrast, children with a physical or sensory disability and with ASD had mean reading scores not significantly different to those of children without special educational needs.
- Proportionally more children with high risk SEBD, and with ASD, could be described as high achievers in reading than in mathematics, while children with a physical or sensory disability are doing about the same as children without special educational needs at all points of the distribution in both reading and mathematics.

3.2.2 Teacher perceptions of children's academic performance

Table 3.5 compares teacher perceptions of children's academic performance by SEN status. Teacher ratings varied significantly by SEN status ($p(\chi^2) < .001$ in all seven cases). Slightly less than half of all children with special educational needs were rated by their teachers as having average academic performance across a range of aspects of learning. Across several aspects, the proportion of children rated average were similar for children with and without special educational needs. However, teacher ratings varied significantly for children with special educational needs in the percentages of students rated above and below average.

Table 3.5. Teacher ratings of children's academic performance, by SEN status

Skill or subject area	Below average		Average		Above average	
	No SEN	SEN	No SEN	SEN	No SEN	SEN
Reading	7.2%	43.2%	46.1%	39.1%	46.7%	17.7%
Writing	9.5%	47.8%	52.4%	41.9%	38.1%	10.3%
Comprehension	6.6%	40.1%	50.8%	44.6%	42.6%	15.3%
Mathematics	8.0%	38.4%	52.7%	46.6%	39.3%	15.0%
Creativity	3.7%	25.3%	58.0%	56.2%	38.3%	18.6%
Oral language	3.4%	26.4%	55.9%	56.3%	40.7%	17.3%
Problem solving	9.8%	46.2%	57.6%	43.1%	32.6%	10.7%

Children with special educational needs were more likely than those without to be rated as below average on all aspects of their academic performance. Almost half were rated below average on writing and a problem solving, compared to one in ten children without special educational needs. They were eight times more likely to be rated as below average by their teacher in oral language skills, seven times more likely to be rated below average on creativity, and six times more likely to be rated below average on comprehension.

Given the above, it is not unexpected that they were also less likely to be rated as above average across the same range of measures. One in ten of these children were rated by their teachers as above average on problem solving and writing, compared to a third of those without special educational needs. They were nearly four times less likely to be rated by their teacher as above average on their writing performance and three times less likely to be above average on problem-solving, comprehension and reading.

Focusing on children rated below average, there is significant across SEN groups ($p(\chi^2) < .001$ in all seven areas). Table 3.6 shows teacher ratings of academic performance (percent 'below average') by broad SEN group. These broad groups are used instead of the 12-group classification due to the small numbers of children involved (that is, within each group and rated below average). In using the broad SEN categories it is worth noting that children in each category vary considerably, as they include children with single and multiple disabilities, including children with SEBD.

Children with GLD fared the least well overall, followed by children with other SEN, ASD and SLD. More than 70 per cent of children with a GLD were rated below average on reading, writing and problem-solving. In contrast, those with SEBD tended to receive fewer below-average ratings.

There was also considerable variation in the range of ratings by teachers across subject or skill area. For example, slightly more children were rated below average on problem solving and writing than on oral language and creativity. This pattern generally holds across the broad SEN groups.

Table 3.6. Percentages of children rated below average by teachers on various measures of academic performance, by broad SEN group

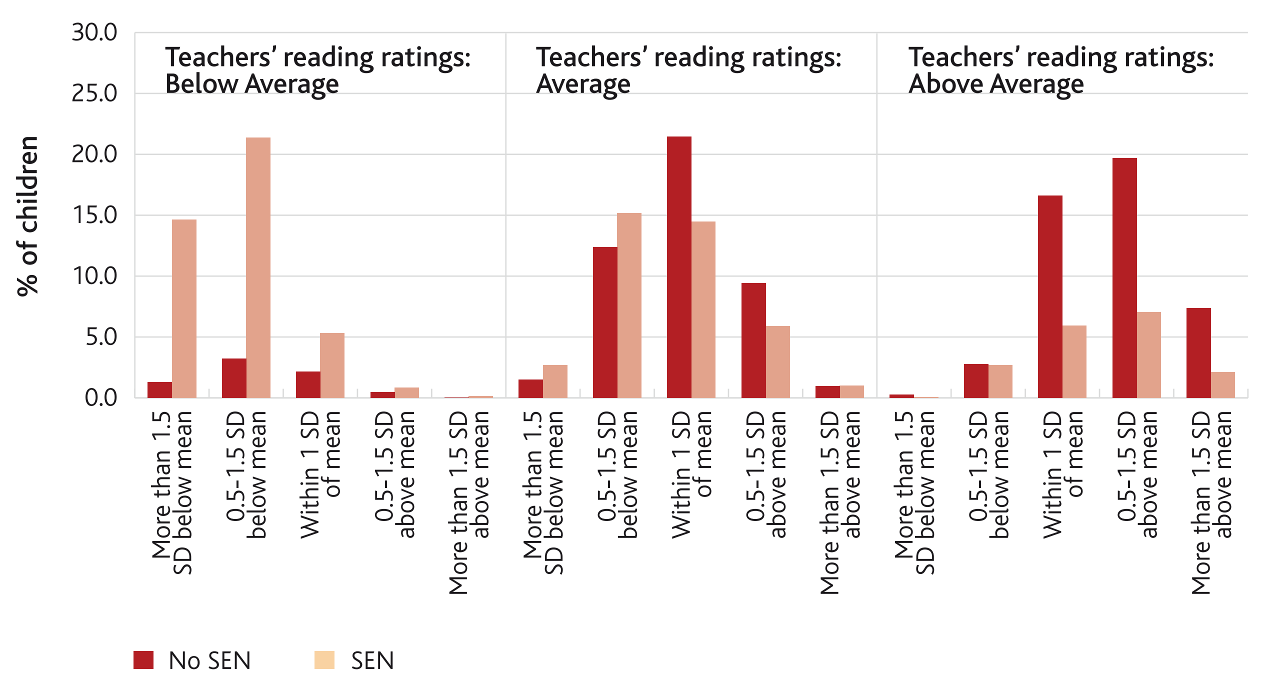
Skill or subject area	No SEN	SEBD	GLD	SLD	ASD	Physical SEN	Other SEN
Reading	7.2%	18.9%	72.2%	62.0%	38.8%	41.9%	65.4%
Writing	9.5%	26.7%	70.2%	59.0%	65.2%	56.9%	65.4%
Comprehension	6.6%	18.6%	67.7%	50.9%	49.3%	39.9%	63.2%
Mathematics	8.0%	21.3%	61.8%	44.4%	42.4%	40.7%	57.6%
Creativity	3.7%	15.2%	39.6%	26.0%	37.3%	28.6%	36.8%
Oral language	3.4%	13.8%	38.4%	35.0%	47.0%	31.5%	33.2%
Problem solving	9.8%	31.3%	70.7%	49.7%	60.9%	42.5%	62.4%

Table 3.7 compares the reading scores of children cross-classified with teacher ratings on reading, grouped according to whether they have been classified with SEN or not. Table 3.8 shows this information for mathematics. Figures 3.3 and 3.4 display this information visually. While there is broad agreement between test scores and teacher ratings, the cells marked in grey in Table 3.7 and 3.8 show some children perform differently on the Drumcondra tests than their teacher ratings would suggest. The results also indicate that the relationship between teacher ratings and test scores is not the same for children with and without special educational needs.

Table 3.7. Drumcondra reading score categories cross-tabulated with teacher ratings of children's reading: Children with and without SEN

Reading Score	Teachers' ratings: No SEN				Teachers' ratings: Any SEN			
	Below Average	Average	Above average	N	Below Average	Average	Above average	N
More than 1.5 SD below mean	1.3	1.6	0.3	185	14.7	2.8	0.1	394
0.5-1.5 SD below mean	3.3	12.4	2.8	1072	21.4	15.2	2.7	878
Within 1 SD of mean	2.2	21.5	16.6	2338	5.4	14.5	6.0	577
0.5-1.5 SD above mean	0.4	9.4	19.7	1714	0.9	6.0	7.1	310
More than 1.5 SD above mean	0.0	1.0	7.4	484	0.2	1.0	2.1	76
Total	7.3	45.9	46.8	5793	42.6	39.4	18.0	2235

Figure 3.3. Drumcondra reading score categories cross-tabulated with teacher ratings of children's reading: Children with and without SEN



Focusing on the grey boxes, the cross-tabulation in Table 3.7 suggests that:

- About one in five, or 21.3 per cent of children without special educational needs, were rated higher than expected by their teachers (1.6 per cent+0.3 per cent+2.8 per cent+16.6 per cent), and 3.6 per cent were rated lower than expected (2.2 per cent+0.4 per cent+1.0 per cent), in comparison to their reading test scores.
- In contrast, just 11.6 per cent of children with special educational needs were rated higher than expected by their teachers, and 7.5 per cent were rated lower than expected, on the basis of their reading test scores.

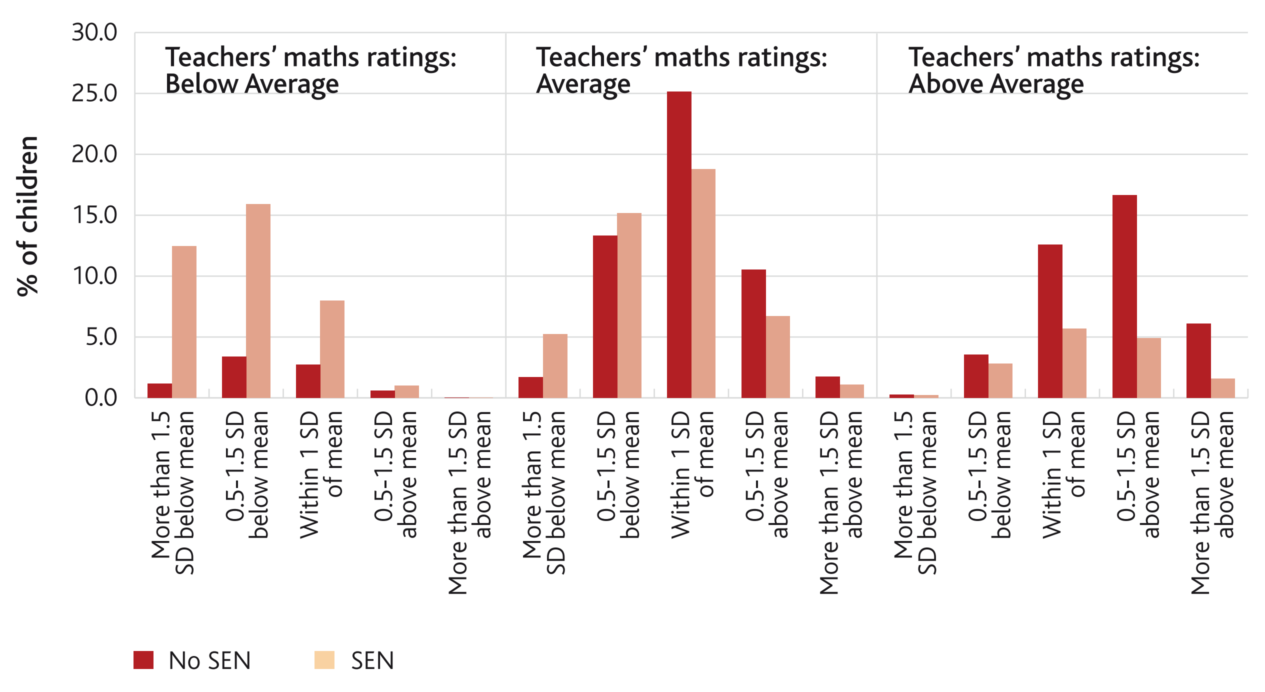
Table 3.8. Drumcondra mathematics score categories cross-tabulated with teachers' ratings of children's mathematics: Children with and without special educational needs

Mathematics Score	Teachers' ratings: No special educational needs				Teachers' ratings: Any special educational needs			
	Below Average	Average	Above average	N	Below Average	Average	Above average	N
More than 1.5 SD below mean	1.2	1.7	0.3	190	12.5	5.3	0.2	405
0.5-1.5 SD below mean	3.5	13.4	3.5	1191	16.0	15.2	2.8	764
Within 1 SD of mean	2.7	25.2	12.6	2370	8.0	18.8	5.7	733
0.5-1.5 SD above mean	0.6	10.6	16.6	1628	1.1	6.7	4.9	286
More than 1.5 SD above mean	0.1	1.8	6.1	469	0.0	1.1	1.6	62
Total	8.1	52.7	39.2	5848	37.6	47.2	15.2	2250

Table 3.8, meanwhile, shows that:

- 18.1 per cent of children without special educational needs were rated higher than expected by their teachers, and 5.2 per cent were rated lower than expected, given children's mathematics test scores.
- About one in seven (14.0 per cent) of children with special educational needs were rated higher than expected by their teachers, and 10.2 per cent were rated lower than expected on the basis of their mathematics test scores.

Figure 3.4. Drumcondra mathematics score categories cross-tabulated with teachers' ratings of children's mathematics: Children with and without special educational needs



This issue is not explored in any further detail across the specific SEN groups since the numbers of children are too small to allow reliable comparisons, but the mismatch may merit further attention in future work in this area. It is important to note that teachers may be applying ratings to pupils on the basis of average school or class achievement or other criteria not captured in the Drumcondra tests; nonetheless, it is noteworthy that twice as many children with special educational needs compared with those without have their proficiencies in reading and mathematics rated as lower by their teachers than their test scores would have suggested.

To summarise, then, this section compared teacher ratings of children's proficiency in various skill and subject areas for children with and without special educational needs. We also compared teacher ratings on children's reading and mathematics proficiency with their scores on the reading and mathematics tests. We found that:

- Children with special educational needs were more likely than those without to be rated as 'below average', and less likely to be rated as 'above average' on all aspects of their academic performance. For example, close to half were rated below average on writing and a problem solving, compared to one in ten children without special educational needs.
- About twice as many children with special educational needs than those without were performing higher on the tests of reading and mathematics than their teacher ratings would suggest.
- In general, it was more common for teachers to 'overestimate' rather than 'underestimate' children's performance in reading and mathematics when compared to children's test scores, regardless of whether or not they had SEN.

3.2.3 Parent perceptions of children's academic performance

Table 3.9 shows parent perceptions of children's performance in reading and mathematics by SEN status. The variation found is statistically significant for reading (χ^2=1121.182, df=2, p<.001) and mathematics (χ^2=893.687, df=2, p<.001). Children with special educational needs were six times more likely than those without to be perceived by their parents as below average in reading (3.4 per cent v 24.8 per cent) and seven times more likely to be perceived as below average in mathematics compared to children without special educational needs (3.5 per cent v 21.8 per cent). It may be noted that there is a strong negative skew (high percentages of positive ratings): taking reading as an example; just 9 per cent of all parents rated their child as being below average, 32 per cent as average, and 59 per cent as above average.

Table 3.9. Parent ratings of children's academic performance, by SEN status

Skill or subject area	Below average		Average		Above average	
	No SEN	SEN	No SEN	SEN	No SEN	SEN
Reading	3.4%	24.8%	29.8%	37.3%	66.9%	37.9%
Mathematics	3.5%	21.8%	38.1%	44.6%	58.5%	33.7%

Tables 3.10 and 3.11 show that, as with teacher ratings (Tables 3.7 and 3.8), parent ratings are not always in line with children's scores on the Drumcondra reading and mathematics tests (focusing on the grey cells in the table, and recalling the negative skew in responses). Parent ratings and achievement score distributions in reading and mathematics are also displayed in Figure 3.5 and 3.6, respectively.

There are some differences by SEN status, similar to those observed in Tables 3.7 and 3.8, but not as marked. Focusing on the grey boxes in Table 3.10 (reading), the cross-tabulation suggests that:

- Almost two in five, or 36.5 per cent of children without special educational needs, were rated higher than expected by their parents (1.9+0.9 per cent + 7.5 per cent + 26.2 per cent), while just

1.9 per cent were rated lower than expected (1.0 per cent+0.2 per cent+0.1 per cent+0.6 per cent), on the basis of their reading test scores.

- About a third of children with special educational needs (32.3 per cent) were rated higher than expected by their parents, and 4.9 per cent were rated lower than expected, than would be indicated by their reading test scores.

Table 3.10. Drumcondra reading score categories cross-tabulated with parent ratings of children's reading: Children with and without SEN

Reading Score	Parent ratings: No SEN				Parents' ratings: Any SEN			
	Below Average	Average	Above average	N	Below Average	Average	Above average	N
More than 1.5 SD below mean	0.5	1.9	0.9	199	7.6	8.3	1.9	404
0.5-1.5 SD below mean	1.5	9.5	7.5	1123	11.4	17.5	10.3	890
Within 1 SD of mean	1.0	13.0	26.2	2435	3.5	9.6	12.8	588
0.5-1.5 SD above mean	0.2	4.9	24.4	1795	0.8	2.3	10.7	313
More than 1.5 SD above mean	0.1	0.6	7.8	513	0.2	0.4	2.9	77
Total	3.3	29.9	66.8	6065	23.4	38.1	38.5	2272

Figure 3.5. Drumcondra reading score categories cross-tabulated with parent ratings of children's reading: Children with and without SEN

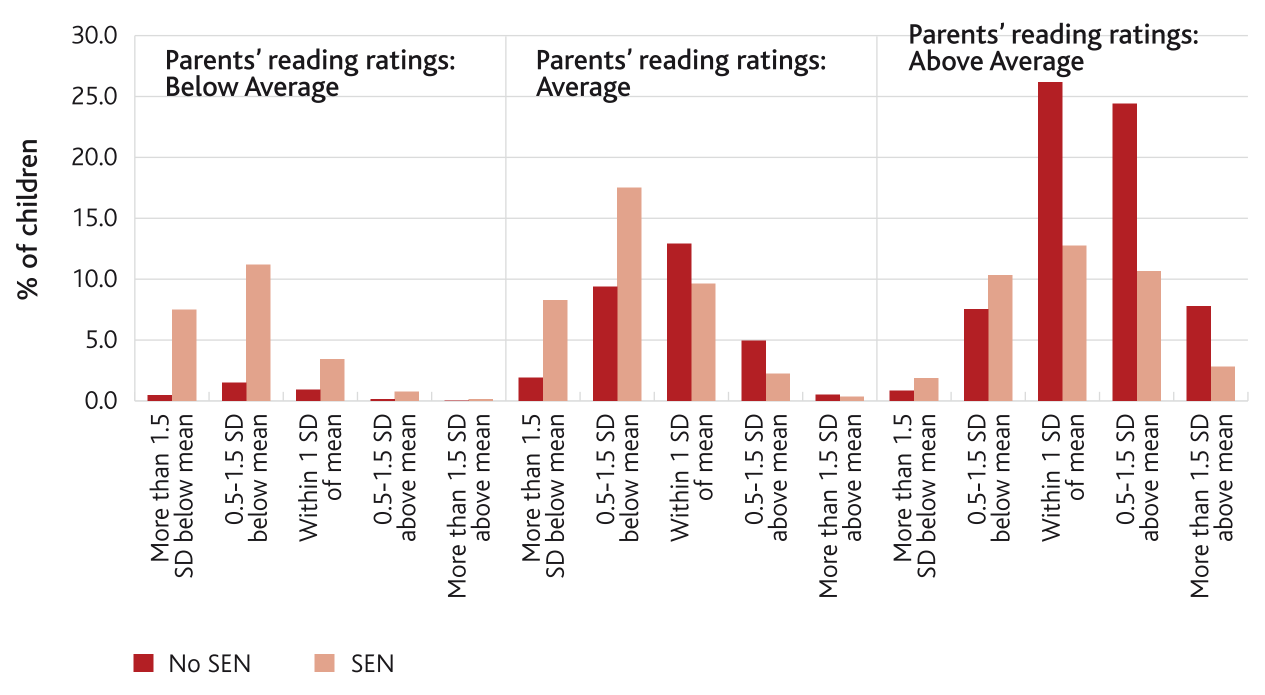


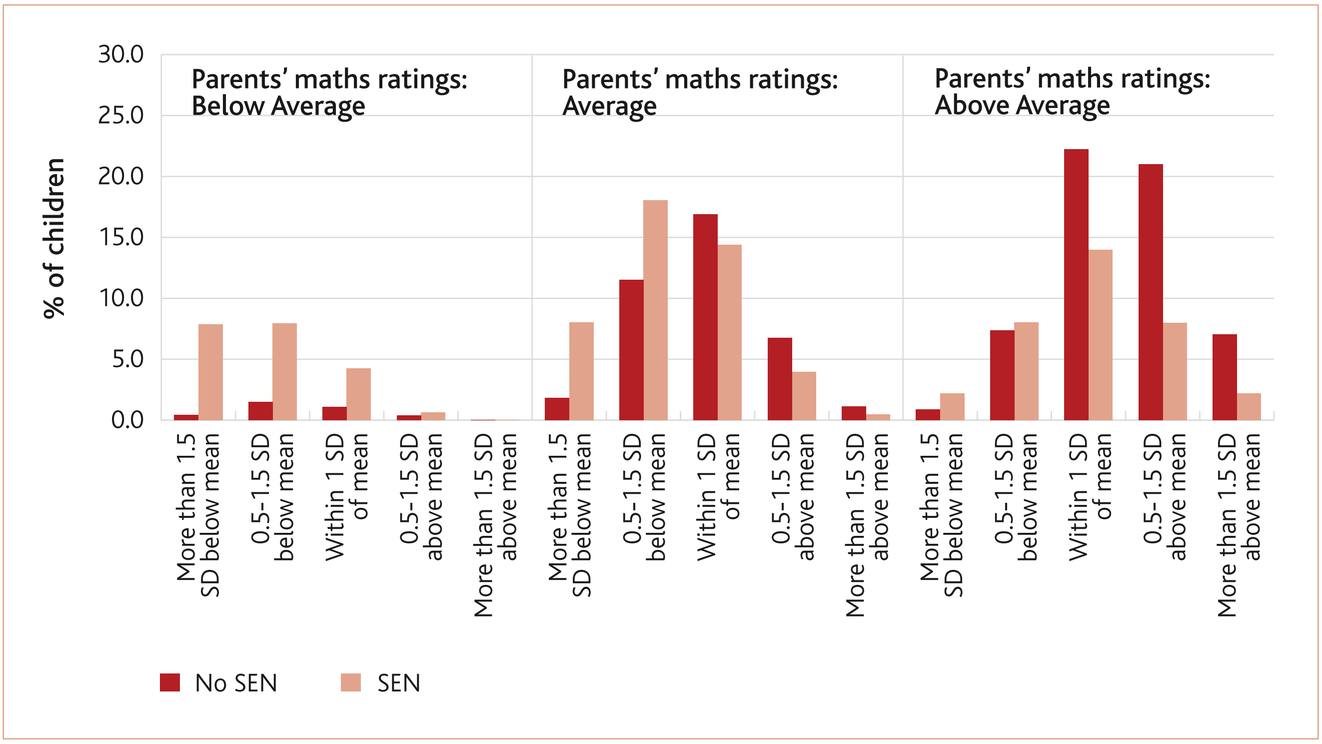
Table 3.11 (mathematics), meanwhile, shows that:

- 33.3 per cent of children without special educational needs were rated higher than expected by their parents, and 2.6 per cent were rated lower than expected, as compared with their mathematics test scores.
- Again, about one in three children with special educational needs (32.2 per cent) were rated higher than expected by their parents, while 5.4 per cent were rated lower than expected on the basis of their mathematics test scores.

Table 3.11. Drumcondra mathematics score categories cross-tabulated with parent ratings of children's mathematics: Children with and without SEN

Mathematics Score	Parent ratings: No SEN				Parents' ratings: Any SEN			
	Below Average	Average	Above average	N	Below Average	Average	Above average	N
More than 1.5 SD below mean	0.4	1.9	0.9	197	7.8	8.0	2.2	413
0.5-1.5 SD below mean	1.5	11.5	7.3	1242	7.9	18.0	8.1	780
Within 1 SD of mean	1.1	16.9	22.2	2462	4.2	14.4	13.9	746
0.5-1.5 SD above mean	0.4	6.8	20.9	1718	0.7	4.0	8.0	289
More than 1.5 SD above mean	0.0	1.1	7.0	499	0.0	0.5	2.2	62
Total	3.4	38.1	58.5	6118	20.7	44.9	34.4	2290

Figure 3.6. Drumcondra mathematics score categories cross-tabulated with parent ratings of children's reading and mathematics: Children with and without SEN



To summarise the main findings on parent views of their children's reading and mathematics proficiency:

- Fewer parents than teachers rated their children as 'below average' on reading and mathematics.
- Unlike teachers, similar percentages of parents of children with and without special educational needs (around or just over one-third) rated their children as having a higher proficiency than expected in reading and mathematics when compared with their actual test scores.
- Like teachers, parents of children with special educational needs were more likely to rate their children as having a lower proficiency than expected in reading and mathematics on the basis of their actual test scores, though these percentages are quite small.
- Results of this section and the previous one indicate a mismatch between children's test-measured abilities and teacher / parent perceptions of these abilities, which in turn appear to vary systematically by SEN status of the children. Of particular note in this regard is that parents and teachers tended to 'underestimate' children's reading and mathematics proficiencies relative to their test scores to a greater degree than they did for children without special educational needs.

3.2.4 Parents' expectations for their children's future education

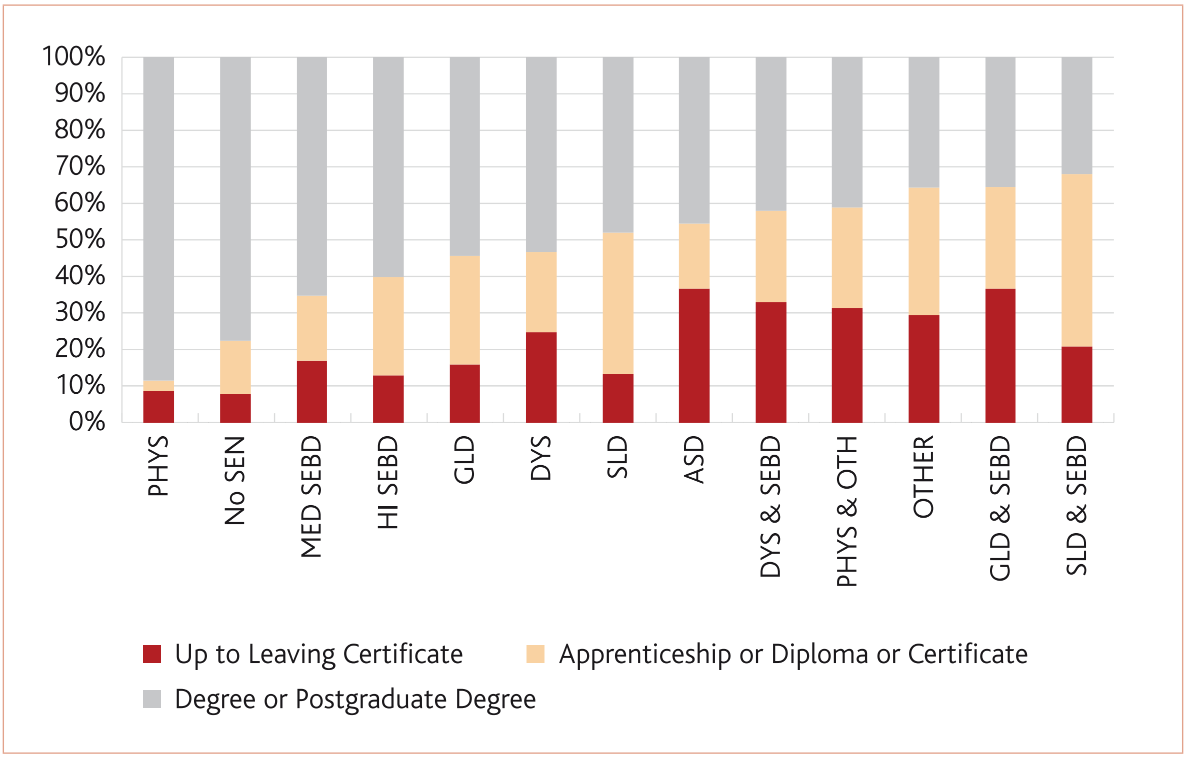
Table 3.12 and Figure 3.7 display the distribution of SEN groups by level of parental educational expectations for their child. There is substantial and significant variation across the SEN groups (χ^2=961.974, df=48, p<.001). Comparing children without special educational needs and children with any special educational needs (the first two rows of the table), it can be seen that almost three times as many parents of children with such needs expect them to have ended their formal education by the Leaving Certificate (21 per cent compared to 8 per cent). At the other end, 53.4 per cent of parents of children with special educational needs expected them to complete a degree. This is markedly lower than the percentage of parents of children without special educational needs (77.6 per cent).

There is substantial variation across the 12 SEN groups in the levels of educational expectations that parents have for their children. While 88 per cent of children with a physical or sensory disability are expected by their parents to attain a degree (which is somewhat higher than parents of those without such needs), this figure is much lower in all of the other groups, with considerable variation between them, ranging from just 32 per cent for children with GLD and SEBD, to 65 per cent for children with medium risk SEBD.

Table 3.12. Parental educational expectations for child, by SEN group

SEN group	Up to Leaving Cert	Apprenticeship, post-secondary cert. or diploma	Primary or post-grad degree
No SEN	7.8%	14.7%	77.6%
Any SEN	20.8%	25.8%	53.4%
Of those with any SEN…			
Medium risk SEBD only	16.9%	17.7%	65.3%
High risk SEBD only	12.9%	26.9%	60.2%
GLD (including some cases with another SEN)	15.9%	29.8%	54.3%
GLD with medium or high risk SEBD	20.8%	47.2%	32.0%
Dyslexia (including some cases with another SEN)	24.7%	22.0%	53.2%
Dyslexia with medium or high risk SEBD	33.0%	25.0%	42.0%
Speech and language disorder (including some cases with another SEN)	13.3%	38.8%	48.0%
Speech and language disorder with medium or high risk SEBD	36.7%	27.8%	35.6%
Autistic spectrum disorder or Asperger's syndrome	36.8%	17.6%	45.6%
Physical or sensory disability only	8.7%	2.9%	88.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	31.4%	27.5%	41.2%
Other SEN	29.5%	34.8%	35.7%
All children	11.4%	17.8%	70.8%

Figure 3.7. Parental educational expectations for child, by SEN group



3.3 Engagement and attendance

3.3.1 Children's liking of school and school subjects

Table 3.13 shows children's liking of school and school subjects (reading, mathematics and Irish) by SEN status. Just over 90 per cent of children with special educational needs 'sometimes' or 'always' like school compared to 94 per cent without. On the other hand, almost twice the number 'never' like school (9.8 per cent) compared to children without special educational needs (5.6 per cent). This variation is statistically significant (χ^2 = 49.141, df = 2, p <.001).

Table 3.13. Children's liking of school and school subjects, by SEN status

	SEN group	Never like it	Sometimes like it	Always like it
Children's liking of school	No SEN	5.6%	67.9%	26.5%
	SEN	9.8%	63.1%	27.1%
Children's liking of mathematics	No SEN	8.7%	43.6%	47.6%
	SEN	13.7%	39.9%	46.4%
Children's liking of reading	No SEN	4.2%	35.7%	60.1%
	SEN	7.7%	39.0%	53.3%
Children's liking of Irish	No SEN	25.1%	52.6%	22.3%
	SEN	37.7%	39.7%	22.6%

Looking at children's liking of school subjects, there was again significant variation by SEN status (Table 3.13; p(χ^2) <.001 in all three cases). Reading was the most liked subject for all children: almost two-thirds of children without special educational needs always like reading, compared to over half of those with such needs. Children's liking of mathematics was slightly lower than for reading, with slightly less than half of children with or without special educational needs always liking mathematics. The least popular subject for children was Irish, with one quarter of children without special educational needs never liking Irish, compared to over one third of those with. It is worth noting that twice as many children with special educational needs never like mathematics compared to reading (13.7 per cent v 7.7 per cent), and that 1.5 times as many children with special educational needs indicated that they did not like Irish compared to those without (37.7 per cent v 25.1 per cent).

Table 3.14 compares children's overall liking of school and school subjects[22] by SEN group. Children were grouped into low, medium and high categories of liking of school and school subjects; high referring to 'always liking' in two or more items, medium representing combinations of 'sometimes liking'; and the low category signifies 'never liking' in two or more items. Fewer than 8 per cent of children without special educational needs indicated a low liking of school and school subjects, while 38 per cent or so indicated a high liking. More of those with special educational needs (12.4 per cent) indicated a low liking of school and school subjects, while about one in three indicated a high liking.

Table 3.14. Children's liking of school and school subjects, by SEN group

SEN group	Low	Medium	High
No SEN	7.6%	54.7%	37.7%
Any SEN	12.4%	54.2%	33.4%
Of those with any SEN…			
Medium risk SEBD only	8.8%	57.3%	33.9%
High risk SEBD only	13.2%	53.0%	33.8%
GLD (including some cases with another SEN)	5.9%	67.9%	26.3%
GLD with medium or high risk SEBD	10.5%	50.2%	39.4%
Dyslexia (including some cases with another SEN)	14.1%	60.5%	25.4%
Dyslexia with medium or high risk SEBD	25.8%	41.8%	32.4%
Speech and language disorder (including some cases with another SEN)	12.2%	45.1%	42.7%
Speech and language disorder with medium or high risk SEBD	4.0%	41.2%	54.8%
Autistic spectrum disorder or Asperger's syndrome	18.8%	53.7%	27.5%
Physical or sensory disability only	11.1%	56.7%	32.1%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	17.6%	46.0%	36.5%
Other SEN	20.0%	49.6%	30.4%
All children	9.0%	54.5%	36.5%

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[22] The measure was developed using children's responses on three items from the main questionnaire, 'What do you think about school?' and 'Do you like the following subjects: Mathematics, Reading?'

Two groups of children with special educational needs (SLD, and SLD with SEBD) had a high overall liking of school and school subjects compared to those without. However, many groups with special educational needs expressed a relatively low liking of school and school subjects. Low liking of school was 15 per cent or more in children with dyslexia and SEBD, physical or sensory disability with SEBD and / or other SEN, children with ASD, and children classified as having other SEN. This variation is large and statistically significant (χ^2=168.743, df=24, p<.001).

The main points arising from this analysis of children's liking of school and school subjects are that:

- A large majority of children, with and without special educational needs, indicated that they liked school.
- A majority of children also indicated that they liked mathematics, reading and Irish. Reading was the most popular subject and Irish the least popular.
- Of all children with special educational needs, mathematics was less well liked than reading, and 1.5 times as many in this cohort indicated that they did not like mathematics.
- A comparison of children's liking of school and school subjects (that is, on a scale that summarised their responses to liking school, reading, and mathematics) shows that on average, children with special educational needs liked school less than their those without: for example, while about one in eight had a low liking of school and school subjects, just under 8 per cent of children without special educational needs indicated a low liking.
- There was significant variation among children with special educational needs in their liking of school and school subjects. Liking was relatively high among children with SLD, and with SLD and SEBD. It was comparatively low among children with dyslexia and SEBD, with ASD, with physical disabilities and SEBD and / or other SEN, and children with other SEN.

3.3.2 Children's attendance at school

Table 3.15 shows children's attendance at school as reported by their teachers (and the data are further illustrated in Figure 3.8, with no absences up to two weeks of absences collapsed into a single category)[23]. In general, absences were on the low side, with just 8 per cent of all children missing three weeks or more of school; 18 per cent missed two weeks or more[24]. High absences are more prevalent among children with special educational needs: for example, 16.1 per cent of children without special educational needs missed two or more weeks of school, compared to 22.2 per cent of children with special educational needs.

There is also statistically significant variation across SEN groups (χ^2=307.494, df=48, p<.001). Of particular note is the finding that 27 per cent of children with dyslexia and SEBD missed three or more weeks of school, while only 8.5 per cent or so of children with dyslexia missed three or more weeks (though the small numbers in these sub-groups should be borne in mind). Also of note is the finding that a relationship exists between children's liking of school and school subjects in some SEN groups. In particular, there is a statistically significant association between liking school / school subjects and attendance rates in three of the groups: children with high-risk SEBD, with dyslexia, and with SLD (χ^2 < .01 in all three cases).

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[23] Parent responses were used where teacher responses were not available.

[24] The monitoring of children's attendance comes under the remit of the Education and Welfare Services (EWS) section of Tusla, the Child and Family Agency, established under the Education (Welfare) Act, 2000 (and formerly the National Education Welfare Board, or NEWB). Children missing more than 20 days of school in a given school year, particularly in the absence of parental communication with the school, the EWS may intervene via an Educational Welfare Officer (EWO) in the first instance. See www.newb.ie.

To sum up:

- Overall attendance rates are lower among children with special educational needs compared to children without: while about 22 per cent missed two or more weeks of school in the past year, 16 per cent of those without special educational needs did so.
- Low attendance was particularly marked among children with dyslexia and SEBD (and was notably lower than among children with dyslexia only).
- Low attendance and low liking of school subjects tended to go hand-in-hand for some children, while there is no relationship between the two in others. Children with high-risk SEBD, dyslexia, and SLD who did not like school / school subjects tended to miss school more often.

Table 3.15. Pupil absences over the past year, by SEN group

SEN group	Report of pupil absence over the past year					
	No absence	1 day-1 week	1-2 weeks	2-3 weeks	3-4 weeks	More than 4 weeks
No SEN	11.5%	49.1%	23.3%	9.0%	4.8%	2.3%
Any SEN	8.0%	42.2%	27.6%	11.7%	5.7%	4.8%
Of those with any SEN…						
Medium risk SEBD only	8.3%	40.3%	28.6%	10.4%	8.1%	4.4%
High risk SEBD only	6.8%	36.9%	31.2%	16.0%	6.2%	3.0%
GLD (including some cases with another SEN)	10.2%	44.7%	23.6%	9.3%	4.5%	7.7%
GLD with medium or high risk SEBD	7.9%	44.4%	23.8%	14.3%	4.8%	4.8%
Dyslexia (including some cases with another SEN)	6.4%	39.0%	46.0%	5.9%	1.6%	1.1%
Dyslexia with medium or high risk SEBD	3.0%	32.0%	21.0%	17.0%	9.0%	18.0%
Speech and language disorder (including some cases with another SEN)	8.8%	51.0%	23.5%	13.7%	1.0%	2.0%
Speech and language disorder with medium or high risk SEBD	7.7%	52.7%	23.1%	8.8%	3.3%	4.4%
Autistic spectrum disorder or Asperger's syndrome	13.2%	39.7%	22.1%	14.7%	10.3%	0.0%
Physical or sensory disability only	5.9%	50.0%	25.0%	7.4%	7.4%	4.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	8.2%	44.9%	22.2%	8.2%	7.0%	9.5%
Other SEN	9.0%	47.8%	23.7%	14.3%	2.4%	2.9%
All children	10.6%	47.2%	24.5%	9.7%	5.1%	3.0%

Figure 3.8. Pupil absences over the past year, by SEN group

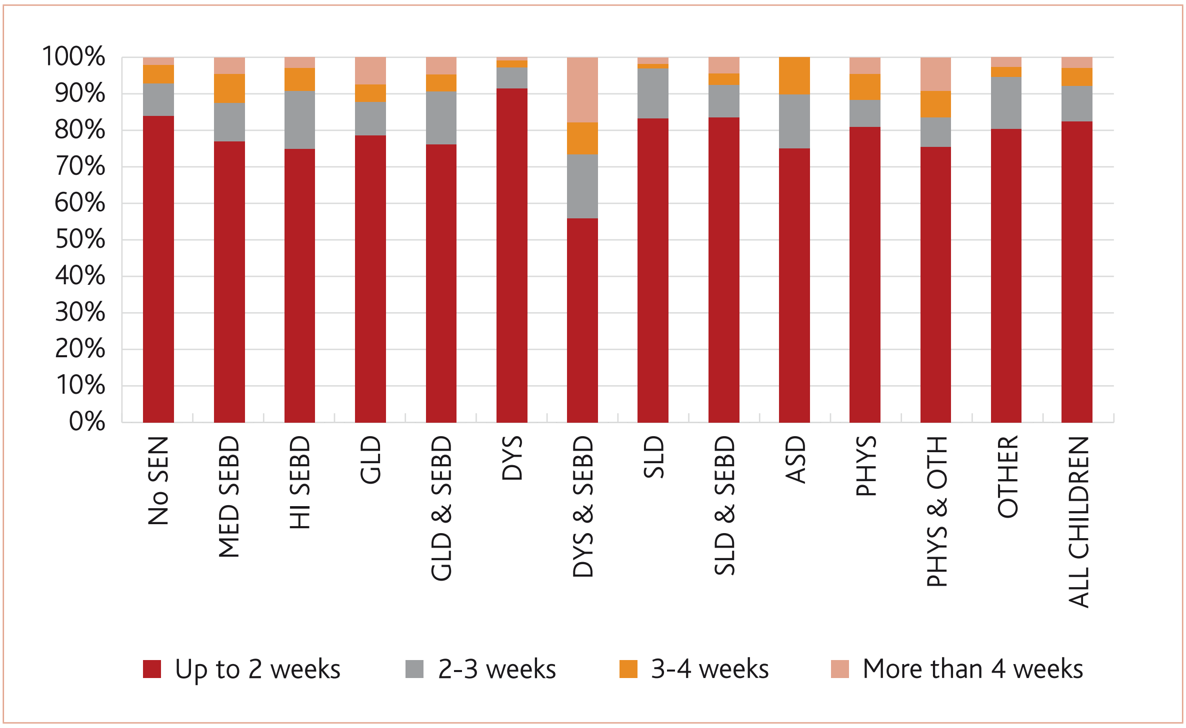

Table 3.16 examines the reasons for absence from school by SEN group (as reported by parents), since the absence data in the previous table does not distinguish between 'explained' and 'unexplained' non-attendance. Across all children, 11 per cent had no absences, 71 per cent were absent for health reasons, 13.5 per cent for holidays, and 4 per cent for other reasons. The table shows that not only does absence vary across SEN status (as already shown in Table 3.13), but also that reasons for it differ. For example, while 70 per cent of children without special educational needs missed school for health reasons, 75 per cent with those did so. There is a statistically significant association between reasons for absence and SEN group (χ^2 = 97.645, df = 36, p<.001). Among groups of children with special educational needs, children with dyslexia and SEBD, and with a physical or sensory disability, were the least likely to report no absences from school. Furthermore, these two SEN groups along with children with a physical or sensory disability, and SEBD and / or other SEN were the most likely to report absences from school for health reasons. Children with ASD and children with SLD were less likely than children without special educational needs to report absence from school due to health reasons.

There was much variation in relation to absences from school for holiday reasons, with children with SLD more likely than those without to report missing school for a holiday. All other groups of children with special educational needs were less likely than those without to report missing school for holiday reasons. Children with a GLD and children with dyslexia and SEBD were the least likely groups to report being absent from school for holidays.

The reasons for these patterns are unclear and may be in part related to the varying health needs of children in the different SEN groups and variations in holiday-taking behaviour across socioeconomic groups (see also Chapter 4 for comparisons of SEN groups along social and economic characteristics). The data collection period (September 2007-June 2008) may also be relevant.

Table 3.16. Parent reasons for pupil absences from school by SEN group

SEN group	No absences	Health reasons	Holiday reasons	Other reasons
No SEN	12.3%	69.7%	14.4%	3.6%
Any SEN	8.4%	74.9%	11.1%	5.6%
Of those with any SEN…				
Medium risk SEBD only	8.6%	76.5%	10.5%	4.4%
High risk SEBD only	7.2%	73.1%	10.9%	8.9%
GLD (including some cases with another SEN)	11.2%	74.4%	8.5%	5.8%
GLD with medium or high risk SEBD	8.1%	75.8%	10.5%	5.6%
Dyslexia (including some cases with another SEN)	6.7%	75.4%	13.4%	4.5%
Dyslexia with medium or high risk SEBD	3.1%	81.2%	9.4%	6.2%
Speech and language disorder (including some cases with another SEN)	9.4%	68.8%	17.7%	4.2%
Speech and language disorder with medium or high risk SEBD	8.5%	70.7%	11.0%	9.8%
Autistic spectrum disorder or Asperger's syndrome	13.6%	65.2%	12.1%	9.1%
Physical or sensory disability only	6.1%	81.8%	10.6%	1.5%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	9.0%	80.0%	8.3%	2.8%
Other SEN	9.3%	72.5%	13.4%	4.9%
All children	11.2%	71.2%	13.5%	4.2%

Note. Figures in Tables 3.13 and 3.14 do not tally exactly since data in Table 3.13 combine parent and teacher reports; Table 3.14 is based on parent reports.

3.4 Happiness and Well-being

3.4.1 Children's scores on the Piers-Harris measures of self-concept

Table 3.17 compares children's scores on the Piers-Harris self-concept measures[25] by SEN group. The scale consists of six subscales and is designed to measure specific aspects of child self-concept. Two are felt to be of particular relevance to this study: 'happiness and satisfaction' and 'freedom from anxiety', though all subscales are shown in Table 3.17.

The 'freedom from anxiety' subscale is designed to measure anxiety and mood of children, focusing on specific emotions of worry, sadness and fear. The 'happiness and satisfaction' subscale is intended to measure a child's general feelings of happiness and their satisfaction with life, giving a sense of a child's overall well-being. The Piers Harris total scores and subscales were standardised to a score of 50 and a standard deviation of ten in order to facilitate comparisons across scales and groups.

There is a difference of 5.3 points, or just over half a standard deviation, between the mean scores on the overall Piers-Harris scale, of children with and without special educational needs. Mean score differences on each of the subscales range between about 4 and 5 points between these two groups on each of the subscales, with the exception of the physical appearance and attributes subscales, where it is smaller (about 2 points). All differences are statistically significant ($p < .001$). It is worth noting that the standard deviations for the overall scale and subscales tend to be larger for children with special educational needs, indicating greater variation in happiness and well-being among children with special educational needs than those without.

Looking at the lower portion of Table 3.17, and the scores on the overall Piers-Harris score, it can be seen that all SEN groups, except children with a physical or sensory disability, have lower than average scores. These score differences are large and statistically significant in eight of the 12 SEN groups, and are particularly low – half a standard deviation or more below the mean – in five groups: high risk SEBD, GLD with SEBD, dyslexia with SEBD, SLD with SEBD, and other SEN.

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[25] Nine-year-olds were asked to complete a short version of the self-concept scale consisting of 35 items entitled The Way I Feel About Myself.

Table 3.17. Children’s scores on the Piers-Harris total scale and subscales, by SEN group

Category	Piers-Harris total score		Freedom From Anxiety		Happiness & Satisfaction		Physical Appearance & Attributes		Behavioural Adjustment		Intellectual & School Status		Popularity	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
No SEN	51.40	9.25	51.14	9.44	51.12	9.20	50.52	9.66	51.22	9.14	51.16	9.45	51.39	9.21
Any SEN	46.14	10.94	46.91	10.81	46.98	11.37	48.58	10.73	46.66	11.40	46.80	10.74	46.30	11.03
Of those with any SEN…														
Medium risk SEBD only	**47.36**	10.57	**47.40**	10.55	**47.30**	11.09	**48.37**	11.14	**48.44**	9.88	**48.28**	10.62	**47.13**	11.31
High risk SEBD only	**44.63**	12.75	**45.73**	12.09	**45.52**	13.94	**47.57**	11.90	**45.58**	13.21	**45.87**	11.90	**44.27**	12.05
GLD (including some cases [36] with another SEN)	**47.40**	10.21	**47.37**	9.90	48.28	9.95	49.36	10.30	**48.15**	10.19	**47.72**	10.09	**46.66**	10.98
GLD with medium or high risk SEBD	**43.06**	11.25	**45.55**	10.89	**44.49**	11.85	47.50	9.63	**42.26**	12.69	**43.73**	11.32	**45.19**	9.75
Dyslexia (including some cases [16] with another specific SEN	**47.79**	9.49	49.95	10.12	48.99	9.18	49.54	9.55	**47.20**	10.97	**46.28**	9.46	49.68	9.16
Dyslexia with medium or high risk SEBD	**42.82**	10.93	**44.01**	10.86	**44.98**	12.86	47.31	10.84	**42.68**	12.59	**43.89**	10.09	**44.72**	10.83
Speech and language disorder (including some cases [24] with another specific SEN	48.68	10.04	49.37	9.03	48.93	8.96	51.28	9.35	48.19	10.45	48.51	10.38	48.83	9.20
Speech and language disorder with medium or high risk SEBD	**42.64**	9.45	**44.36**	10.66	**41.01**	10.81	46.81	12.41	**45.82**	10.35	**45.65**	10.03	**41.18**	10.07
Autistic spectrum disorder or Asperger’s syndrome	45.64	8.99	46.80	9.53	49.43	8.71	50.12	10.45	46.09	10.58	48.07	9.50	**44.43**	8.44
Physical or sensory disability only	52.30	7.89	51.31	8.42	52.04	7.89	52.10	6.87	51.57	8.31	52.50	7.72	51.83	8.36
Physical or sensory disability with medium or high risk SEBD and / or other SEN	47.64	9.99	48.39	9.88	48.86	10.39	50.09	10.04	**46.97**	11.49	47.74	10.23	**47.36**	11.31
Other SEN	**43.09**	10.89	**44.14**	11.44	**45.80**	11.16	47.50	10.30	**43.59**	12.23	**43.74**	10.72	**44.43**	10.80
All children	50.00	10.00	50.00	10.00	50.00	10.00	50.00	10.00	50.00	10.00	50.00	10.00	50.00	10.00

Bold: significant <.001.

Looking at the happiness and satisfaction subscale, scores again tend to be lower on average for most of the SEN groups compared to the no-SEN group, and particularly low (and statistically significantly lower) in three of the groups: GLD with SEBD, dyslexia with SEBD, and SLD with SEBD. Two of these three groups (dyslexia with SEBD, and SLD with SEBD), along with other SEN, have low scores on the freedom from anxiety scale also.

To summarise:

- Compared to children without special educational needs, children with such needs have much lower scores (by around two-fifths to half a standard deviation) on all Piers-Harris measures, with the exception of the physical appearance and attributes subscale, for which the difference was smaller.
- There is wider variation on these measures of happiness and well-being among children with special educational needs than among those without.
- Some specific SEN groups have low scores on most or all of these seven measures, relative to the group of children without special educational needs. These include children with SEBD, GLD both with and without SEBD, dyslexia with SEBD, and SLD with SEBD. This suggests that SEBD, whether experienced on its own or with other SEN, is having a significant negative impact on children's happiness and well-being.

3.4.2 Child and parent reports of being bullied: Incidence, impact, and reasons

Table 3.18 shows the distribution of SEN groups by child and parent reports of the child being bullied. Parents were asked: 'To your knowledge, has the study child been a victim of bullying in the last school year?' (Yes, No). Children were asked: 'Thinking back over the last year would you say that anyone (either a child or an adult) picked on you?' (Yes, No). It should be noted that while parents were explicitly asked about their child being bullied, the term 'bullying' was not used with the children; also, the measures conflate more and less serious forms of bullying. In this section, we use the term 'bullying' for responses of both children and parents.

Table 3.18. Child and parent reports of child being bullied, by SEN group

SEN group	Child report of being bullied / picked on*	Parent report of being bullied**
No SEN	36.2%	18.5%
Any SEN	46.6%	36.3%
Of those with any SEN…		
Medium risk SEBD only	51.4%	40.4%
High risk SEBD only	60.3%	43.4%
GLD (including some cases with another SEN)	33.9%	22.8%
GLD with medium or high risk SEBD	46.9%	39.7%
Dyslexia (including some cases with another SEN)	32.6%	21.4%
Dyslexia with medium or high risk SEBD	57.1%	50.5%
Speech and language disorder (including some cases with another SEN)	35.1%	21.0%
Speech and language disorder with medium or high risk SEBD	27.5%	32.2%
Autistic spectrum disorder or Asperger's syndrome	53.4%	47.1%
Physical or sensory disability only	32.4%	26.5%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	51.4%	37.6%
Other SEN	43.8%	39.6%
All children	39.0%	23.5%

* Percentage of Yes responses to a question asking: '…over the last year would you say that anyone (either a child or an adult) picked on you?'

** Percentage of Yes responses to a question asking: 'To your knowledge, has the study child been a victim of bullying in the last school year?'

Overall, about 47 per cent of children with special educational needs reported being bullied, compared to 36 per cent of those without. Bullying was much more commonly reported by parents of children with special educational needs (36 per cent) compared to children without (18.5 per cent).

There are variations by SEN group in the prevalence of reports of bullying. Children with high risk SEBD, dyslexia and SEBD, and ASD reported the highest rates of bullying. Parent reports of their child being bullied are consistent with the reports by the children, in that parents of children with dyslexia and SEBD, ASD and high risk SEBD reported the highest incidences of bullying. This variation between subgoups is quite large and statistically significant for both the child reports (χ^2=169.545, df=12, p<.001) and the parent reports (χ^2=402.402, df=12, p<.001).

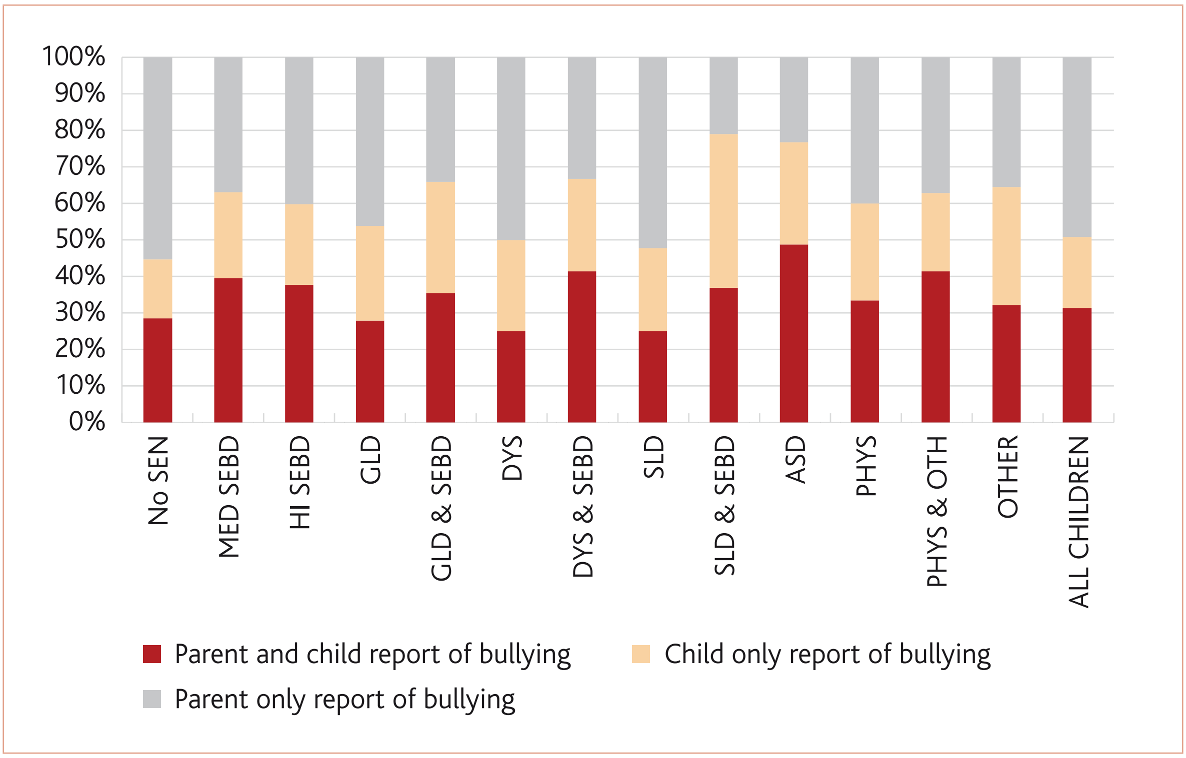
Taking a closer look at the overlap between child and parent reports of the bullied child, one in five children (21.3 per cent) with special educational needs have an overlapping report of bullying compared to one in 12 (11.8 per cent) of children without (Table 3.19 and Figure 3.9). Child-parent consistency in reporting of bullying is around or exceeds 25 per cent in children with medium and high risk SEBD, dyslexia with SEBD, ASD, and physical or sensory SEN with SEBD and / or other SEN.

Table 3.19. Overlap between child and parent reports of child being bullied, by SEN group

SEN group	No report of bullying	Parent and child report of bullying	Child only report of bullying	Parent only report of bullying
No SEN	58.6%	11.8%	6.7%	22.9%
Any SEN	41.3%	21.3%	14.9%	22.5%
Of those with any SEN…				
Medium risk SEBD only	36.0%	25.3%	15.0%	23.7%
High risk SEBD only	28.1%	27.0%	15.9%	28.9%
GLD (including some cases with another SEN)	57.6%	11.8%	11.0%	19.6%
GLD with medium or high risk SEBD	39.7%	21.4%	18.3%	20.6%
Dyslexia (including some cases with another SEN)	57.2%	10.7%	10.7%	21.4%
Dyslexia with medium or high risk SEBD	25.0%	31.0%	19.0%	25.0%
Speech and language disorder (including some cases with another SEN)	56.4%	10.9%	9.9%	22.8%
Speech and language disorder with medium or high risk SEBD	58.2%	15.4%	17.6%	8.8%
Autistic spectrum disorder or Asperger's syndrome	37.7%	30.4%	17.4%	14.5%
Physical or sensory disability only	56.5%	14.5%	11.6%	17.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	40.5%	24.7%	12.7%	22.2%
Other SEN(s)	38.2%	19.9%	19.9%	22.0%
All children	53.7%	14.5%	9.0%	22.8%

Note. Children were asked: '…over the last year would you say that anyone (either a child or an adult) picked on you?' Parents were asked: 'To your knowledge, has the study child been a victim of bullying in the last school year?'

Figure 3.9. Overlap between child and parent reports of child being bullied, by SEN group



Note. Children were asked: '...over the last year would you say that anyone (either a child or an adult) picked on you?' Parents were asked: 'To your knowledge, has the study child been a victim of bullying in the last school year?'

Also, while similar percentages of children with special educational needs (22.5 per cent) and without (22.9 per cent) have parent-only reports of bullying, child-only reports are more prevalent among the former (14.9 per cent) than the latter (6.7 per cent). This finding (that is, children reporting being bullied but not their parents) is of potential concern, particularly if the child's experience of being bullied or picked on is having negative effects. Child reports of bullying in the absence of parent reports are most frequent among children with GLD and SEBD, dyslexia and SEBD, and other SEN. This suggests that, as well as the higher prevalence of bullying of children with special educational needs, bullying of these particular groups may be a cause for concern as it may be compounded by lack of parental awareness. This variation in agreement between parents and children across SEN groups is large and statistically significant (χ^2=498.341, df=36, p<.001).

Table 3.20 examines the impact of being bullied by SEN group, and should be considered alongside the overall prevalence of being bullied (Table 3.18) as well as the overlap between child and parent reports (Table 3.19). Across all children, around one in nine (15.4 per cent) reported being upset 'a lot' by bullying. Impact of bullying is more negative among children with special educational needs than those without (with 21.5 per cent of the former being upset 'a lot' compared to 13.1 per cent). This figure is 25 per cent or more among children with medium and high risk SEBD, and dyslexia with SEBD. On the other hand, 6 per cent of all children with special educational needs reported being 'not at all' upset by bullying, compared with 3 per cent of those without. The variation between SEN groups on the perceived impact of bullying is statistically significant (χ^2=283.187, df=36, p<.001).

Table 3.20. Impact on children of being bullied, as reported by children, by SEN group

SEN group	Upset a lot	Upset a little	Not at all upset	Does not apply
No SEN	13.1%	18.4%	3.1%	65.5%
Any SEN	21.5%	16.5%	6.0%	56.0%
Of those with any SEN…				
Medium risk SEBD only	25.0%	19.4%	5.0%	50.6%
High risk SEBD only	29.5%	18.5%	9.3%	42.7%
GLD (including some cases with another SEN)	11.4%	16.3%	3.7%	68.7%
GLD with medium or high risk SEBD	18.9%	15.3%	9.9%	55.9%
Dyslexia (including some cases with another SEN)	14.8%	15.3%	2.2%	67.8%
Dyslexia with medium or high risk SEBD	31.6%	18.4%	7.1%	42.9%
Speech and language disorder (including some cases with another SEN)	15.2%	10.1%	8.1%	66.7%
Speech and language disorder with medium or high risk SEBD	13.2%	7.7%	3.3%	75.8%
Autistic spectrum disorder or Asperger's syndrome	21.7%	18.8%	4.3%	55.1%
Physical or sensory disability only	11.9%	16.4%	3.0%	68.7%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	21.4%	16.2%	9.1%	53.2%
Other SEN	22.5%	12.7%	5.9%	58.9%
All children	15.4%	17.8%	3.9%	62.9%

Table 3.21 compares reasons that parents provided for their child being bullied across SEN groups. The most common reasons for bullying cited by parents were physical appearance, educational reasons and peer issues, with about a quarter providing other reasons, or indicating that they did not know the reason. Parents of children with special educational needs were more likely to report that their child was bullied due to a physical or learning disability, though the percentages are very small. This variation is not substantial, but is statistically significant overall (χ^2=44.192, df=8, p<.001).

Table 3.21. Reasons for child experiencing bullying provided by parents, by SEN group

Reason	No SEN	SEN
Physical or learning disability	1.6%	5.9%
Physical appearance	24.9%	27.1%
Educational reasons	12.6%	10.4%
Family background	4.9%	6.7%
Religion / ethnicity	4.0%	3.5%
Gender role	3.2%	3.7%
Peer relationships	13.0%	8.2%
Bully / victim personality characteristics	9.2%	9.0%
Other reason / reason not known	26.6%	25.4%
Total (of parents reporting bullying)	100.0%	100.0%

To summarise the key findings on bullying:

- In general, reports on being bullied are open to interpretation and parents and children were not asked the same question so results should be interpreted with these issues in mind.
- Being bullied was more frequently reported by children with special educational needs (47 per cent) than those without (36 per cent). Bullying reports by parents were also more frequent for the former (36 per cent) than the latter (18 per cent).
- Relatively high incidences of bullying were reported by children with high risk SEBD, dyslexia with SEBD, and ASD. Parent-reported incidences were also high for children with dyslexia with SEBD and ASD, but not children with high risk SEBD.
- Parent and child reports of the child being bullied tended to concur more often among children with special educational needs than those without, but it is also the case that child-only reports of bullying were more prevalent among the former group than the latter. These 'child-only' reports are of concern if associated with negative impacts for the children, and were particularly prevalent among children with GLD and SEBD, dyslexia and SEBD, and other SEN.
- The perceived impact of being bullied, as reported by the children themselves, was more negative among children with special educational needs. Comparatively high rates of negative impact were found in children with medium and high risk SEBD, and dyslexia with SEBD.

3.4.3 Children's friends and activities

Table 3.22 compares the distribution of frequency of socialisation with peers by SEN group. Across all children, 6 per cent of parents reported that they never socialised with friends. This figure is just slightly higher among children with special educational needs (8.6 per cent) than those without (5.2 per cent). On the other hand, similar percentages of the former group (46 per cent) and the latter (44 per cent) could be described as having high rates of socialising (that is, spending time with friends four times a week or more often).

There is very large variation, however, in the percentages of children in the specific SEN groups in their patterns of socialising. Focusing on the 'never' category, this ranges from 2.4 per cent to 28 per cent. Children with ASD (28 per cent), SLD and SEBD (16 per cent), and physical or sensory disability with SEBD and / or other SEN (15 per cent) the most likely to report never spending anytime socialising with friends. At the other end of the scale, that is, socialising with friends six or seven days a week, was comparatively high among children with GLD, and GLD with SEBD, relating to other children. Variation between the no-SEN group and the 12 SEN groups is quite large and statistically significant ($\chi^2=218.448$, df=48, $p<.001$).

Table 3.22. Parent reported frequency of peer socialisation by SEN group

SEN group	Parent report of days per week spent socialising with friends				
	Never	Once a week	2 or 3 days a week	4 or 5 days a week	6 or 7 days a week
No SEN	5.2%	16.3%	34.4%	18.1%	25.9%
Any SEN	8.6%	14.0%	31.3%	18.0%	28.1%
Of those with any SEN…					
Medium risk SEBD only	5.8%	12.9%	33.4%	21.6%	26.2%
High risk SEBD only	10.6%	11.7%	30.1%	16.0%	31.7%
GLD (including some cases with another SEN)	2.4%	13.0%	31.3%	19.5%	33.7%
GLD with medium or high risk SEBD	4.0%	10.4%	24.8%	22.4%	38.4%
Dyslexia (including some cases with another SEN)	4.8%	13.4%	37.6%	16.1%	28.0%
Dyslexia with medium or high risk SEBD	8.9%	16.8%	40.6%	10.9%	22.8%
Speech and language disorder (including some cases with another SEN)	10.8%	15.7%	41.2%	12.7%	19.6%
Speech and language disorder with medium or high risk SEBD	15.6%	21.1%	28.9%	8.9%	25.6%
Autistic spectrum disorder or Asperger's syndrome	27.9%	22.1%	13.2%	14.7%	22.1%
Physical or sensory disability only	5.8%	15.9%	37.7%	23.2%	17.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	14.7%	16.0%	21.8%	21.8%	25.6%
Other SEN	12.2%	15.0%	28.5%	14.6%	29.7%
All children	6.1%	15.7%	33.6%	18.1%	26.5%

Table 3.23 shows the distribution of the number of close friends that the children's parents reported, by SEN group. Overall, 8.3 per cent of children had none or one close friend, while almost 51 per cent had four or more close friends. Children with special educational needs tended to have fewer close friends than those without: for example while about 7 per cent of the latter had up to one close friend, almost 13 per cent of children with special educational needs had up to one close friend. There is quite wide variation in the numbers of close friends across the no-SEN and 12 SEN groups ($\chi^2=301.149$, df=36, $p<.001$). The percentage of children with up to one close friend is around 20-25 per cent or more among children with SLD and SEBD, and a physical or sensory disability with SEBD and / or other SEN. This figure is very high – 41 per cent – for children with ASD.

Table 3.23. Number of close friends, by SEN group

SEN group	None or 1	2-3	4-5	6 or more
No SEN	6.7%	40.5%	34.5%	18.3%
Any SEN	12.6%	42.9%	29.7%	14.9%
Of those with any SEN…				
Medium risk SEBD only	13.2%	43.4%	30.6%	12.7%
High risk SEBD only	9.8%	48.1%	29.0%	13.1%
GLD (including some cases with another SEN)	7.0%	34.6%	27.6%	30.9%
GLD with medium or high risk SEBD	8.8%	51.2%	30.4%	9.6%
Dyslexia (including some cases with another SEN)	4.3%	48.4%	29.6%	17.7%
Dyslexia with medium or high risk SEBD	14.0%	42.0%	37.0%	7.0%
Speech and language disorder (including some cases with another SEN	8.9%	41.6%	33.7%	15.8%
Speech and language disorder with medium or high risk SEBD	19.8%	45.1%	25.3%	9.9%
Autistic spectrum disorder or Asperger's syndrome	41.4%	37.1%	20.0%	1.4%
Physical or sensory disability only	8.7%	40.6%	33.3%	17.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	23.6%	36.3%	24.8%	15.3%
Other SEN	12.7%	40.0%	31.8%	15.5%
All children	8.3%	41.1%	33.2%	17.4%

Table 3.24 compares the frequency of exercise per week by SEN group. The 'never' and 'about once a week' categories have been combined here since across all children only 1 per cent reported never exercising. Across all children, 20 per cent exercised once a week or less often, while just over 56 per cent reported exercising almost every day. Rates of exercise are similar between children with and without special educational needs. However, among the former, rates are relatively low among those with ASD, a physical or sensory disability, and a physical or sensory disability with SEBD and other SEN. The most regular exercisers, on the other hand, were children with dyslexia (both with and without SEBD) (who also are the least likely to have no close friends). The variation across the 12 SEN groups and the no-SEN group is statistically significant (χ^2=57.597, df=24, p<.001).

Table 3.24. Frequency of exercise per week, by SEN group

SEN group	Never/About once a week	3-4 times a week	Almost every day
No SEN	20.3%	24.5%	55.2%
Any SEN	19.6%	20.9%	59.5%
Of those with SEN…			
Medium risk SEBD only	20.0%	23.6%	56.4%
High risk SEBD only	20.8%	19.2%	60.0%
GLD (including some cases with another SEN)	19.8%	21.8%	58.4%
GLD with medium or high risk SEBD	18.4%	24.0%	57.6%
Dyslexia (including some cases with another SEN)	13.4%	11.8%	74.7%
Dyslexia with medium or high risk SEBD	13.0%	17.0%	70.0%
Speech and language disorder (including some cases with another SEN)	22.8%	17.8%	59.4%
Speech and language disorder with medium or high risk SEBD	16.3%	30.2%	53.5%
Autistic spectrum disorder or Asperger's syndrome	24.2%	27.4%	48.4%
Physical or sensory disability only	26.9%	26.9%	46.3%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	24.0%	18.7%	57.3%
Other SEN	18.9%	18.9%	62.1%
All children	20.2%	23.5%	56.4%

This section provided a brief overview of children's socialising and activity levels. Main findings are as follows:

- Of all children, 6 per cent never socialised with friends, while 56 per cent socialised with friends four times a week or more. Children with special educational needs were slightly less inclined to socialise frequently with friends than those without.
- Among children with special educational needs, the frequency of socialising with peers varied: low rates of socialising are evident among children with ASD, SLD with SEBD, and physical or sensory disability with SEBD and / or other SEN.
- Around 8 per cent of all children had none or one close friend, while 51 per cent had four or more close friends.
- Consistent with the results for socialising with peers, children with special educational needs tended to have fewer close friends.
- Children with SLD and SEBD, a physical or sensory disability with SEBD and / or other SEN, and particularly ASD, had far fewer close friends.
- Overall, the children taking part in GUI were quite active, with 56 per cent exercising almost every day, though around 20 per cent exercised about once a week or never.
- There was less marked variation between children in the various SEN groups in terms of frequency of exercise than for number of close friends or frequency of socialising with peers, though the variation is statistically significant. Children with dyslexia (with and without SEBD) were particularly active.

3.5 Children's levels of independence

3.5.1 Parents' perceptions of children's independence

A measure of children's independence was constructed using two items from the Pianta independence subscale ('my child reacts strongly to separation from me' and 'my child is overly dependent on me'). The Pianta independence subscale consists of four items. One focuses on the parent-driven dependence ('I often think about my child while at work'), while a second item focuses on a child's reaction to correction from a parent ('my child appears hurt or embarrassed when I correct him / her'). Due to a low internal consistency of the subscale (alpha = .50) and in order to emphasise the child-driven features of independence, the research team decided to use two items in the new measure. On this basis, about 20 per cent of children were classified as having low independence, 60 per cent with medium independence, and 20 per cent with high independence.

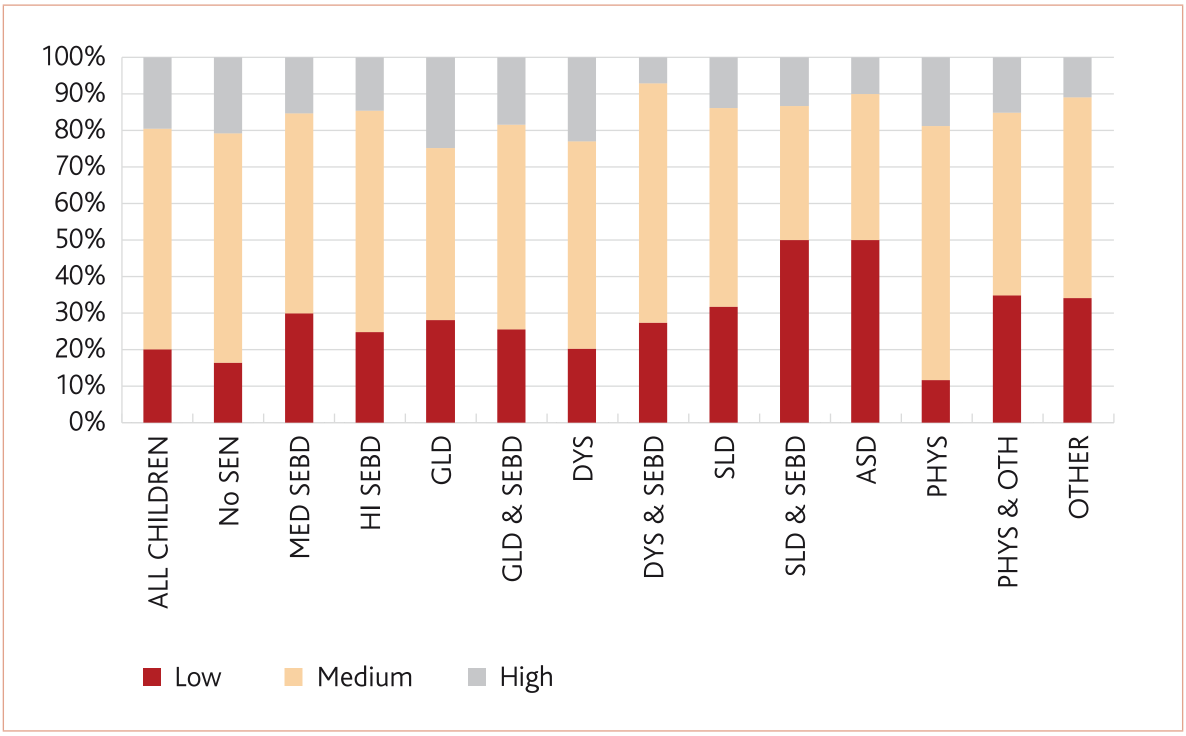
Close to twice as many children with special educational needs (29.5 per cent) were classified as having low independence than children without (16.4 per cent). However, slightly more children with GLD (25 per cent) and with dyslexia (23 per cent) were classified as having high levels of independence relative to children with no special educational needs (21 per cent).

On this measure, children's independence varied significantly across the no-SEN and 12 SEN groups (χ^2 298.308, df = 24, p<.001) (Table 3.25 and Figure 3.10). Low levels of independence were particularly prevalent (50 per cent) among children with SLD and SEBD, and with ASD.

Table 3.25. Parent perceptions of children's independence, by SEN group

SEN group	Low	Medium	High
No SEN	16.4%	62.8%	20.8%
Any SEN	29.5%	54.6%	15.9%
Of those with any SEN….			
Medium risk SEBD only	29.9%	54.9%	15.3%
High risk SEBD only	24.9%	60.5%	14.6%
GLD (including some cases with another SEN)	28.0%	47.2%	24.8%
GLD with medium or high risk SEBD	25.6%	56.0%	18.4%
Dyslexia (including some cases with another SEN)	20.3%	56.7%	23.0%
Dyslexia with medium or high risk SEBD	27.3%	65.7%	7.1%
Speech and language disorder (including some cases with another SEN)	31.7%	54.5%	13.9%
Speech and language disorder with medium or high risk SEBD	50.0%	36.7%	13.3%
Autistic spectrum disorder or Asperger's syndrome	50.0%	40.0%	10.0%
Physical or sensory disability only	11.6%	69.6%	18.8%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	34.8%	50.0%	15.2%
Other SEN	34.1%	54.9%	11.0%
All children	20.0%	60.5%	19.4%

Figure 3.10. Parent perceptions of children's independence, by SEN group



3.5.2 Children's participation in day-to-day self-care tasks

Table 3.26 shows children's participation in day-to-day self-care tasks. The measure was developed from a list of seven things that children were asked in their main questionnaire[26]. Three items from the list were selected 'shower or bathe', 'tidy your bedroom' and 'make your bed'. Children were grouped by whether they were generally expected to do for themselves: none or one of the tasks, two of the tasks or completing all three of the selected tasks. Although these tasks were selected to represent a broad indication of what nine-year-old children might reasonably be expected to be able to do by way of self-care, there are, of course, differences across families in terms of parental expectations regarding these tasks.

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[26] Shower or bathe, make breakfast, get yourself up in the morning, make a packed lunch, make dinner, tidy your bedroom, make your bed.

Table 3.26. Children's participation in selected day-to-day self-care tasks, washing, making bed and tidying bedroom, by SEN group

SEN group	None or one	Two	Three
No SEN	10.8%	24.3%	64.8%
Any SEN	14.8%	26.3%	58.9%
Of those with any SEN…			
Medium risk SEBD only	12.3%	26.0%	61.7%
High risk SEBD only	17.0%	26.7%	56.3%
GLD (including some cases with another SEN)	9.1%	25.1%	65.8%
GLD with medium or high risk SEBD	11.9%	31.0%	57.1%
Dyslexia (including some cases with another SEN)	17.1%	23.5%	59.4%
Dyslexia with medium or high risk SEBD	8.0%	25.0%	67.0%
Speech and language disorder (including some cases with another SEN)	21.0%	29.0%	50.0%
Speech and language disorder with medium or high risk SEBD	17.6%	25.9%	56.5%
Autistic spectrum disorder or Asperger's syndrome	21.0%	33.9%	45.2%
Physical or sensory disability only	11.9%	25.4%	62.7%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	22.7%	25.3%	52.0%
Other SEN	16.9%	25.5%	57.6%
All children	11.9%	24.9%	63.2%

Across all children, 12 per cent completed none or one of the three tasks, 25 per cent completed two, and 63 per cent completed three. Participation in self-care tasks was slightly lower, overall, among children with special educational needs.

As can be seen from the table below there is significant variation across the 12 SEN groups in children's completion of self-care tasks. Children with a GLD and children with dyslexia and SEBD were more likely to complete all three tasks than children without special educational needs. All other SEN groups were less likely to be expected to complete three self-care tasks than children without special educational needs, while children with ASD were the least likely SEN group to report completing all three tasks. Overall, this variation is statistically significant ($\chi^2=78.905$, df=24, p<.001).

3.5.3 Children's participation in day-to-day household tasks

Table 3.27 shows children's participation in day-to-day household tasks. The measure was developed from a list of common household tasks that children were asked 'do you do any of these chores at home?' From a list of eight household tasks, three[27] common household chores were selected to create a measure of child participation in completing household tasks. Overall, about 16 per cent of children participated in no tasks or one task, 30 per cent in two, and 54 per cent in all three. These percentages are similar for children with and without special educational needs.

However, significant, albeit not substantial, variation, exists in participation in day-to-day household tasks between the no-SEN group and 12 SEN groups (χ^2=54.301, df=24, p<.001). It should be noted that some variation is due to factors such as differences in parenting styles, household management and the number of older siblings in the family. The lowest level of participation in household tasks is associated with the ASD group.

Table 3.27. Children's participation in selected day-to-day household tasks, help with cooking, cleaning and doing the dishes, by SEN group

SEN group	None or one	Two	Three
No SEN	15.3%	30.0%	54.7%
Any SEN	19.2%	30.3%	50.5%
Of those with any SEN…			
Medium risk SEBD only	17.7%	29.7%	52.6%
High risk SEBD only	21.8%	28.0%	50.1%
GLD (including some cases with another SEN)	16.0%	29.2%	54.7%
GLD with medium or high risk SEBD	21.6%	23.2%	55.2%
Dyslexia (including some cases with another SEN)	21.5%	32.3%	46.2%
Dyslexia with medium or high risk SEBD	13.9%	39.6%	46.5%
Speech and language disorder (including some cases with another SEN)	18.0%	34.0%	48.0%
Speech and language disorder with medium or high risk SEBD	9.4%	36.5%	54.1%
Autistic spectrum disorder or Asperger's syndrome	28.6%	30.2%	41.3%
Physical or sensory disability only	17.6%	38.2%	44.1%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	23.3%	30.7%	46.0%
Other SEN	21.4%	27.6%	51.0%
All children	16.4%	30.1%	53.5%

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[27] Help with cooking for the family, hoovering / cleaning, and washing the dishes / emptying the dishwasher.

3.6 Chapter summary and conclusions

This chapter offered a detailed examination of the outcomes of children with and without special educational needs under four themes: educational performance, engagement and attendance, happiness and well-being, and independence. The key findings and their implications are discussed in turn below. Chapter 4 builds on these findings by examining the individual, home, family and school characteristics of children with and without special educational needs, and both Chapters 3 and 4 are designed to lead into Chapter 5, which examines some of the outcomes considered in this chapter in their relationship with SEN and the extent to which background characteristics matter.

A key theme emerging from these analyses is the wide range of variation among children with special educational needs on the outcomes examined. Some of this variation, of course, may be due to differences in their home or school environments, as noted above. The sections below attempt to highlight these variations, many of which may be expected, given the literature review (Chapter 1), but some of which may be somewhat unexpected. Some measures considered come with limitations. For example, the achievement measures are quite broad and are unlikely to be capable of detecting specific strengths and limitations in children's skills; the findings discussed under the theme of independence may best be considered as baseline indications, since this theme may be better addressed as the children get older.

3.6.1 Educational performance

Children with special educational needs had mean scores on the standardised reading and mathematics test that were about two-thirds of a standard deviation lower than children without. That said, there is very wide variation in the reading and mathematics proficiencies demonstrated by children with special educational needs. Those with SEBD combined with GLD, with SLD, and with dyslexia and SEBD had considerably lower mean scores than children without. In contrast, children with a physical or sensory disability and with ASD had mean reading scores not significantly different to those of children without. There are also differences between the mathematics and reading profiles of some groups of children: that is, a minority with high risk SEBD and with ASD may be described as high achievers in reading, but not in mathematics. This clearly demonstrates, at least on the basis of the standardised tests administered as part of GUI, that the reading and mathematics skills of children with special educational needs, though lower than children without on average, are very varied. The strong performance of some children with high risk SEBD, ASD and a physical sensory disability is to be welcomed.

Teachers were much more likely to rate children with special educational needs than those without as being below average on seven measures of educational outcomes. The same was true of parents' ratings of their children's reading and mathematics standards. However, comparisons of teacher and parent ratings with the Drumcondra reading and mathematics test scores suggest their views differed markedly at times to the level of performance that children actually demonstrated on a standardised test. The results also suggest that parents, and even more so teachers, tended to 'underestimate' the achievement levels of children with special educational needs to a greater degree than children without. While one would not expect anything close to perfect alignment between an overall impressionistic rating and a standardised test score, the discrepancy between the two, and the variation across SEN status, is nonetheless marked and systematic.

The comparisons of children's reading and mathematics scores with their parent and teacher ratings indicate that both are basing their judgements of ability on other, possibly non-objective information. What impact this has on teacher and parent expectations of their children's educational performance is not possible to determine from these analyses, though it does raise concerns, particularly given the very low expectations that some parents have for their children's future educational careers.

We found that almost three times as many parents of children with special educational needs expected them to have finished their formal education by the Leaving Certificate (21 per cent compared to 8 per cent); while at the other end, the percentage of parents of children with special educational needs who expected them to complete a degree is markedly lower than the percentage of parents of children without special educational needs (53 per cent compared to 78 per cent). Consistent with their test scores, children with physical or sensory disabilities had parental educational expectations that were slightly higher than the expectations of parents of children without special educational needs. In contrast, over one-third of parents of children with dyslexia with SEBD, SLD with SEBD and ASD expected them to complete a degree. The contrast between the test scores of children with high risk SEBD and ASD on the one hand and their parents' expectations for their future education on the other is noteworthy here.

It must be borne in mind, though, that children were age nine at the time of the collection of the Wave I data for GUI; however, some of the literature reviewed in Chapter 1 suggests that parental educational expectations may decrease over time (NHES, 2007). Follow-up work using Wave II of the child cohort data could be used to examine the extent to which educational expectations of parents have changed over time and across the SEN groups (in the context of a radically changed and changing economic landscape), preferably with adjustments for socioeconomic and demographic characteristics.

3.6.2 Engagement and attendance

In examining children's engagement, we looked at their liking of school and of reading, mathematics and Irish. The relatively high dislike of Irish, particularly among children with special educational needs (38 per cent said they 'never like it') is noteworthy, and may suggest problems with the content or delivery of the Irish curriculum. Although a large majority of children indicated that they liked school and liked reading and mathematics, more children with special educational needs were inclined to 'never like' them. There was significant variation among these children in their liking of school and school subjects. Liking was relatively high among children with SLD, and with SLD and SEBD. It was comparatively low among children with dyslexia and SEBD, with ASD, with physical disabilities and SEBD and / or other SEN, and children with other special educational needs. Expressing a low liking of school and subjects at age nine is a finding of concern, since it may point to a risk of disengagement from education as time progresses. This view is confirmed for some children, where we found that the number of school days missed was associated with a lower liking of school / subjects – specifically, children with high-risk SEBD, with dyslexia, and with SLD. Of course, reasons for indicating a low liking are not evident in these analyses, but some findings on happiness, well-being and being bullied (discussed below) would appear to be relevant here.

As already noted, we examined the number of days missed in the past school year among children with and without special educational needs, and found that overall, the former had lower attendance rates than the latter. Again, however, there was considerable variation among the SEN groups in this regard. Low attendance was particularly marked among children with dyslexia and SEBD (and was notably lower than among children with dyslexia only). Analyses of the reasons given by parents for their children's absence from school suggest that several factors may be at play, including the health needs of children and their socioeconomic backgrounds.

We have cause to be concerned about the overall well-being of children with special educational needs. On an overall measure of happiness and well-being (the Piers-Harris scale), we found that they had lower scores than children without special educational needs (the difference being half a standard deviation). The well-being of some of the SEN groups in particular is a matter for concern when we consider that five groups of children had mean scores half a standard deviation or more below the mean on most or all of the Piers-Harris subscales that is, children with high risk SEBD, GLD with SEBD, dyslexia with SEBD, SLD with SEBD, and other SEN.

Some of the differences in the happiness and well-being found on the Piers-Harris scale and subscales may be related to differences in children's experiences of being bullied. Bullying was more frequently experienced by children with special educational needs (47 per cent) than those without (36 per cent). Parents of the former children also reported bullying more frequently (36 per cent) than parents of those without special educational needs (19 per cent).

Aside from prevalence, however, an examination of the overlap between parent and children's reports of bullying suggests that those with special educational needs experienced bullying without their parents' knowledge to a greater degree: 15 per cent of children with special educational needs reported being bullied in the absence of a parent report, compared to 7 per cent of children without such needs. The former also reported greater negative impact of bullying than the latter. Negative impact of bullying was highest among children with medium and high risk SEBD, and dyslexia with SEBD. These findings confirm the need to identify and tackle bullying on an ongoing basis and point to the need to better understand the experiences of children with SEBD in this regard. In considering these findings, it also needs to be borne in mind that parents and children were asked about bullying in a general way; these prevalence estimates conflate more and less serious forms of bullying.

In a general sense, it can be said of the children who took part in GUI that they are sociable, enjoy close friendships and are physically active. Again, though, there are differences among children with special educational needs, and between children with and without such needs, though perhaps not as marked as differences in relation to educational performance and engagement. One finding stand out in these analyses – that is, the very low numbers of friends and low rates of socialising reported by parents of children with ASD (and also, but to a lesser degree, among parents of children with SLD and SEBD, and a physical or sensory disability with SEBD and / or other SEN). Whether this finding is as a result of the children's preferences and needs, the opportunities they have for socialising and making friends, or some combination, may be worthy of further investigation at a later time.

3.6.3 Independence

We examined children's independence using three measures – parent ratings of the level of their children's dependence on them as parents, children's level of participation in self-care tasks (e.g. having a shower or bath), and children's participation in everyday household tasks (e.g. helping with the washing up). All these measures may best be regarded as baseline indicators for which comparisons can be made with these children's outcomes when the Wave II dataset becomes available. That said, we found differences between children with special educational needs on all three measures, with lower levels of independence among children with ASD in particular (while other groups had similar levels of independence as their peers without special educational needs).

3.6.4 Conclusion

In conclusion, the SEN group that emerges as most similar to children without a special educational need on the outcomes examined in this chapter are those with a physical or sensory disability. In contrast, it may be inferred that while children with dyslexia may not be performing so well academically, they are relatively sociable and physically active. These are positive findings since they indicate that these children are, in general, doing as well as those without a special educational need in terms of many of the outcomes considered.

For other groups, differing profiles emerge. In particular, it is worth recalling that while children with ASD (a small group of 69) are faring relatively well on standardised tests, their outcomes are quite negative for well-being, socialising and independence. SEBD features heavily in its associations with child well-being, engagement with school, and bullying and the data provide evidence to support the view that children with SEBD as well as another special educational need are faced with particularly challenging life situations. This issue will be further 'unpacked' in Chapters 4 and 5.

It would be unwarranted to draw any firm conclusions about children's educational performance on the basis of the data available, though the differing perceptions of teachers and parents when compared to test scores may suggest a general issue with the measurement (or lack of) of the educational achievements of these children, and communication between teachers and parents regarding their children's potential. The tendency for low educational expectations among parents of children with special educational needs is a finding of concern also, and given the children's age at the time of data collection, further examination of this issue is warranted. Chapter 6, which details the qualitative analyses, explores future plans for these children from both their and their parents' perspective and provides additional insights.

The next chapter provides some context in which to interpret these outcomes by examining the association between educational experiences and outcomes and individual, home, school, class and community factors.

4. Individual, School, Community and Classroom Characteristics of Children with Special Educational Needs

4.1 Overview of individual background characteristics

This chapter begins by describing individual-level background characteristics of the children in the GUI study, comparing these across SEN groups. First, demographic characteristics are examined; second, we look at measures of children's socioeconomic backgrounds; and third, we describe some aspects of children's social, emotional and educational environments. The objective of this section is to identify aspects of these characteristics that show significant variation across SEN groups. This in turn will help to identify specific groups that may be regarded as particularly vulnerable and / or disadvantaged, and / or others that may be relatively advantaged. At the end of the first part of this chapter, a summary of main findings on individual background characteristics is presented. The second part of the chapter examines classroom, school and community characteristics; this is also followed by a summary. The data were collected immediately prior to the economic recession, which may be of relevance in interpreting the socioeconomic analyses in particular.

4.2 Demographic characteristics of children and their families

Table 4.1 shows the distribution of SEN groups by gender. In most, boys are over-represented, with two-thirds or more of the high risk SEBD group, the SLD group, and the ASD group being male. Across all SEN groups, 58.7 per cent of children are boys. The association between gender and SEN group is statistically significant (χ^2=124.682, df=12, p<.001). However, boys are not over-represented in all groups in the classification used in this study. For example, while 67.0 per cent of children classified as having high-risk SEBD are boys, this figure is lower, at 52 per cent, for medium-risk SEBD; and while close to 83 per cent of children with ASD are boys, 54 per cent of children with GLD[28] are girls, and about equal percentages of girls and boys have dyslexia.

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[28] Recall that our classification of children with GLD covers children with mild, moderate and severe general learning disabilities and difficulties.

Table 4.1. Distribution of SEN groups by gender

SEN group	Female	Male
No SEN	51.8%	48.2%
Any SEN	41.3%	58.7%
Of those with any SEN…		
Medium risk SEBD only	48.0%	52.0%
High risk SEBD only	33.0%	67.0%
GLD (including some cases with another SEN)	53.6%	46.4%
GLD with medium or high risk SEBD	47.4%	52.6%
Dyslexia (including some cases with another SEN)	50.3%	49.7%
Dyslexia with medium or high risk SEBD	41.7%	58.3%
Speech and language disorder (including some cases with another SEN)	34.0%	66.0%
Speech and language disorder with medium or high risk SEBD	41.7%	58.3%
Autistic spectrum disorder or Asperger's syndrome	17.5%	82.5%
Physical or sensory disability only	44.7%	55.3%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	53.9%	46.1%
Other SEN	48.0%	52.0%
All children	51.4%	48.6%

The measure of family size used in GUI is a count of all individuals in the household (Table 4.2). On average, there are 4.8 individuals in the GUI children's homes. Family size does not vary appreciably by SEN group, with one exception: children with medium risk SEBD come from slightly smaller families (M = 4.6) than children with no special educational needs (M = 4.8).

Just over 18 per cent of all children live in one-parent families (Table 4.2), while about one in six children without special educational needs are in one-parent families, and one in four children with special educational needs are in a one-parent family. Children in some SEN groups, notably children with SLD and SEBD, are considerably more likely to be in one-parent families than children without special educational needs. The association between one parent family status and SEN group, though small, is statistically significant (χ^2=129.890, df =12, p<.001). Note that the association between one-parent family and SEN status here is not controlled for income; Chapter 5 explores the inter-relationships between these and other characteristics in more detail.

Table 4.2. Family size and one-parent family status across SEN groups

SEN group	Mean family size	SD family size	One parent family
No SEN	4.78	1.19	15.4%
Any SEN	4.76	1.43	25.2%
Of those with any SEN…			
Medium risk SEBD only	4.56	1.32	28.2%
High risk SEBD only	4.59	1.34	33.5%
GLD (including some cases with another SEN)	4.86	1.30	26.8%
GLD with medium or high risk SEBD	4.79	1.51	22.6%
Dyslexia (including some cases with another SEN)	4.79	1.18	25.9%
Dyslexia with medium or high risk SEBD	4.75	1.47	25.3%
Speech and language disorder (including some cases with another SEN)	5.21	1.21	9.7%
Speech and language disorder with medium or high risk SEBD	4.77	1.50	33.5%
Autistic spectrum disorder or Asperger's syndrome	4.63	1.17	22.9%
Physical or sensory disability only	4.61	1.18	7.7%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	4.76	1.23	16.2%
Other SEN	4.94	1.38	19.2%
All children	4.77	1.22	18.1%

Statistically significant difference (SEN groups compared to the no-SEN group) is in bold.

Table 4.3 shows the distribution of SEN groups by country of birth. This three-category indicator was constructed using information on the country of birth and number of years in the country of the children's parents (or one parent, if information on the other was missing). Across all children, about 91 per cent had one or both parents born in Ireland; 4 per cent had parents born outside but resident in Ireland for more than ten years; and 5 per cent had parents born outside but resident in Ireland for less than ten years. There is not much variation across the SEN groups in terms of country of birth, but overall, there is a significant association between country of birth and SEN status (χ^2=81.376, df=24, p<.001). This overall statistically significant result could be due to the low percentage of children with SLD and SEBD with parents born outside Ireland, and / or the relatively high percentage of children with ASD with parents born outside Ireland.

In terms of cultural or ethnic status, it may be noted that a large majority of parents that took part in GUI were of Irish (91.2 per cent) or other white background (5.7 per cent), while 1.4 per cent were of African or other Bback background, 1.0 per cent of Chinese or other Asian background, and less than 1 per cent of another ethnic or cultural group.

Table 4.3. Distribution of SEN groups across parents' country of birth

SEN group	At least one parent born in Ireland	At least one parent in Ireland for more than 10 years	One or both parents in Ireland for less than 10 years
No SEN	91.4%	3.5%	5.1%
Any SEN	90.3%	5.5%	4.2%
Of those with any SEN…			
Medium risk SEBD only	87.1%	6.6%	6.3%
High risk SEBD only	89.7%	5.9%	4.3%
GLD (including some cases with another SEN)	87.0%	9.3%	3.7%
GLD with medium or high risk SEBD	91.3%	4.8%	4.0%
Dyslexia (including some cases with another SEN)	96.8%	1.6%	1.6%
Dyslexia with medium or high risk SEBD	91.0%	9.0%	0.0%
Speech and language disorder (including some cases with another SEN)	93.1%	1.0%	5.9%
Speech and language disorder with medium or high risk SEBD	96.7%	0.0%	3.3%
Autistic spectrum disorder or Asperger's syndrome	87.0%	11.6%	1.4%
Physical or sensory disability only	89.9%	4.3%	5.8%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	91.1%	4.5%	4.5%
Other SEN	93.9%	2.8%	3.3%
All children	91.1%	4.0%	4.9%

Table 4.4 shows the distribution of SEN groups by the language spoken at home by children's parents. Similar to country of birth above, this binary indicator was constructed using information on children's parents (or one parent, if information on the other was not available). Across all children, just over 96 per cent had one or both parents speaking English or Irish at home. As with country of birth, the distribution of children in the various SEN groups varies little across language spoken at home, though the variation across SEN groups is statistically significant (χ^2=30.054, df=12, p=.003).

Table 4.4. Distribution of SEN groups by language spoken by parents at home

SEN group	At least one parent speaks English or Irish	One or both parents do not speak English or Irish
No SEN	96.1%	3.9%
Any SEN	96.8%	3.2%
Of those with any SEN…		
Medium risk SEBD only	94.2%	5.8%
High risk SEBD only	98.7%	1.3%
GLD (including some cases with another SEN)	95.9%	4.1%
GLD with medium or high risk SEBD	97.6%	2.4%
Dyslexia (including some cases with another SEN)	98.9%	1.1%
Dyslexia with medium or high risk SEBD	100.0%	0.0%
Speech and Language disorder (including some cases with another SEN)	94.1%	5.9%
Speech and language disorder with medium or high risk SEBD	96.7%	3.3%
Autistic spectrum disorder or Asperger's syndrome	98.6%	1.4%
Physical or sensory disability only	98.5%	1.5%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	99.4%	0.6%
Other SEN	96.7%	3.3%
All children	96.3%	3.7%

Table 4.5 shows the distribution of SEN groups across categories of experiencing moving (house or country). Overall, about one in three children has moved house, and one in ten has moved country. The distributions of children with and without special educational needs are broadly similar. There is some variation across the 12 SEN groups, however. The table indicates that children with medium and high risk SEBD have more frequently experienced a move of house than on average. Overall, these variations are statistically significant ($\chi^2=69.052$, df=24, p<.001).

Table 4.5. Distribution of SEN groups across moving house or country

SEN group	No move of house or country	Move of house	Move of country
No SEN	58.2%	31.4%	10.4%
Any SEN	54.9%	35.1%	10.0%
Of those with any SEN…			
Medium risk SEBD only	48.2%	39.3%	12.5%
High risk SEBD only	46.5%	41.1%	12.4%
GLD (including some cases with another SEN)	62.9%	31.0%	6.1%
GLD with medium or high risk SEBD	59.5%	32.5%	7.9%
Dyslexia (including some cases with another SEN)	57.2%	32.1%	10.7%
Dyslexia with medium or high risk SEBD	51.0%	38.0%	11.0%
Speech and language disorder (including some cases with another SEN)	65.3%	27.7%	6.9%
Speech and language disorder with medium or high risk SEBD	63.7%	22.0%	14.3%
Autistic spectrum disorder or Asperger's syndrome	53.6%	34.8%	11.6%
Physical or sensory disability only	57.4%	36.8%	5.9%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	58.0%	35.0%	7.0%
Other SEN	64.6%	29.2%	6.2%
All children	57.3%	32.4%	10.3%

Summing up, there are few differences between children with and without special educational needs regarding country of birth and language spoken at home. Also, average family size varies little across SEN groups. However, more children with special educational needs (25 per cent) than without (15 per cent) are in one-parent families (and this percentage, at 34 per cent, is particularly high for children with SLD and SEBD). Having experienced moving house was found to be more common among children with medium and high risk SEBD. Also, although proportionately more boys than girls have special educational needs, the distribution of children's gender varies across the SEN groups. For example, there is an almost even split by gender for the medium SEBD group, while twice as many boys than girls are in the high SEBD group, and fewer than one in five children in the ASD group are girls.

4.3 Socioeconomic characteristics of children and their families

Table 4.6 compares the mean socioeconomic index (SEI) scores[29] of households, and the percentages of household income derived from social welfare (SW) payments, of children in each SEN group. Across all children, the SEI has been set to have a mean of 50 and a standard deviation of 10, while on average, about 19 per cent of household income comes from SW (but with considerable variation across households, as indicated by the standard deviation of 29; see bottom row of Table 4.6). Comparing children with and without

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[29] See Chapter 2 for a description of how the SEI was derived.

special educational needs as two broad groups initially, it can be seen from the first two rows of the table that the average SEI score of families of the former is about three-tenths of a standard deviation below that of families of children without such needs; and that while about 16 per cent of household income of children without is from social welfare, this figure is about 11 percentage points, and statistically significantly higher, for children with special educational needs (27 per cent).

Table 4.6. Means and standard deviations on the socioeconomic index (SEI) scale, and percentage of household income from social welfare (SW) payments, by SEN group

SEN group	SEI		% SW	
	Mean	SD	Mean	SD
No SEN	50.82	9.93	15.73	25.90
Any SEN	47.78	9.93	26.71	35.12
Of those with any SEN…				
Medium risk SEBD only	48.26	9.95	24.34	33.75
High risk SEBD only	47.75	9.74	34.73	40.25
GLD (including some cases with another SEN)	45.44	9.50	25.12	33.44
GLD with medium or high risk SEBD	46.29	9.88	25.84	34.02
Dyslexia (including some cases with another SEN)	50.65	8.80	16.96	27.33
Dyslexia with medium or high risk SEBD	48.49	9.97	29.28	35.23
Speech and language disorder (including some cases with another SEN)	47.94	10.50	20.81	32.56
Speech and language disorder with medium or high risk SEBD	46.19	10.19	38.22	40.11
Autistic spectrum disorder or Asperger's syndrome	49.71	10.50	27.75	36.05
Physical or sensory disability only	49.27	9.35	11.45	17.34
Physical or sensory disability with medium or high risk SEBD and / or other SEN	46.21	9.42	28.50	34.33
Other SEN	47.57	10.13	29.73	36.54
All children	50.00	10.00	18.77	29.16

Statistically significant differences (SEN groups compared to the no-SEN group) are in bold.

There are large differences across SEN groups on both of these measures (with values that are statistically significantly different from the no-SEN group marked in bold). Average SEI scores of children with special educational needs range from 45.4 (GLD) to 50.7 (dyslexia), while the percentage of income from social welfare ranges from 11.5 per cent (physical or sensory disability) to 35 per cent and higher (high risk SEBD, and SLD with SEBD).

It can be noted also that, although groups with lower average SEI scores tend to have higher SW values (or higher levels or SW dependency), the relationship is not very strong (r = -0.322, p<.001). This means that while there is a relationship between the parental occupation-based socioeconomic index and social welfare dependence, it is certainly not a prescriptive one, and many other factors are at play. For example, some children with special educational needs may require more care than those without; in turn this may result in one or both parents caring for the child and not working outside of the home.

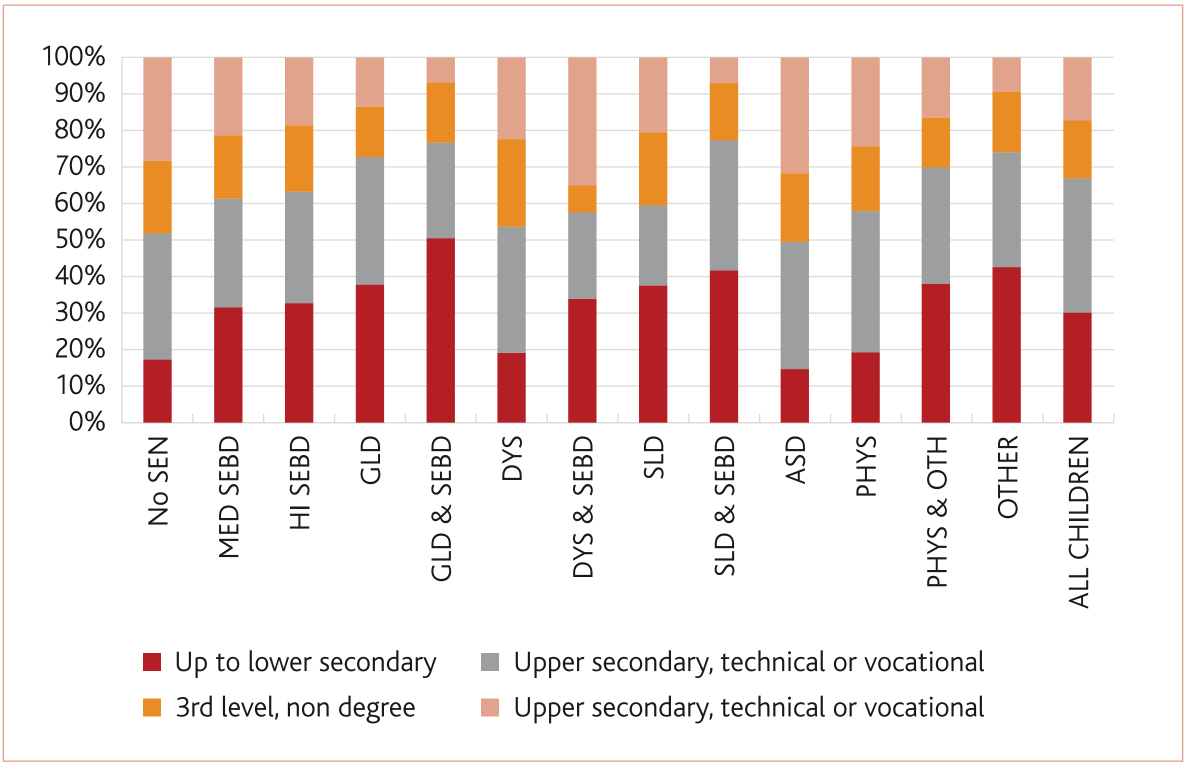
Groups with the lowest SEI scores and the highest SW values, and hence the most socioeconomically disadvantaged on these measures, are children with high risk SEBD, GLD, GLD with SEBD, SLD with SEBD, and a physical or sensory disability with SEBD and / or other SEN.

Table 4.7 shows the distribution of parental education across SEN groups. Here, parental education is the highest of both parents' education attained, where the information was available, or the attainment for one parent, if only one parent's data were available. There is substantial variation in the educational levels of children. Around 17 per cent of parents of children without special educational needs had attained up to lower secondary level, while just over 28 per cent of parents had attained a university degree (primary or post-graduate). In contrast, around one-third of parents of children with special educational needs had up to upper secondary level education only and 18 per cent had attained a university degree. In other words, parents of children with special educational needs had lower levels of educational attainment, on average, than parents of those without. There are groups of children among those with special educational needs with particularly low levels of parental education. These include GLD with SEBD (51 per cent with up to lower secondary education), SLD with SEBD (42 per cent), and other SEN (43 per cent). This variation is quite large and statistically significant (χ^2=447.851, df=12, p<.001). Figure 4.1 illustrates the data shown in Table 4.7.

Table 4.7. Distribution of SEN groups across level of parental education

SEN group	Up to lower secondary	Upper secondary, technical or vocational	3rd level, non degree	3rd level primary degree	3rd level post-grad
No SEN	17.3%	34.5%	19.9%	15.7%	12.6%
Any SEN	33.9%	30.9%	16.9%	11.6%	6.6%
Of those with any SEN…					
Medium risk SEBD only	31.6%	29.7%	17.4%	14.0%	7.3%
High risk SEBD only	32.8%	30.5%	18.1%	11.9%	6.7%
GLD (including some cases with another SEN)	37.8%	34.9%	13.8%	9.0%	4.5%
GLD with medium or high risk SEBD	50.6%	26.0%	16.5%	4.5%	2.4%
Dyslexia (including some cases with another SEN)	19.1%	34.6%	23.8%	13.5%	9.0%
Dyslexia with medium or high risk SEBD	33.9%	23.6%	7.5%	25.5%	9.5%
Speech and language disorder (including some cases with another SEN)	37.6%	21.9%	20.0%	14.4%	6.1%
Speech and language disorder with medium or high risk SEBD	41.7%	35.6%	15.7%	4.5%	2.5%
Autistic spectrum disorder or Asperger's syndrome	14.7%	34.8%	18.9%	21.1%	10.5%
Physical or sensory disability only	19.2%	38.8%	17.7%	13.3%	11.0%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	38.1%	31.8%	13.6%	8.3%	8.2%
Other SEN	42.6%	31.5%	16.6%	4.9%	4.4%
All children	30.2%	36.7%	15.9%	11.2%	6.0%

Figure 4.1. Levels of parental education, by SEN group



Aside from indicators of occupation, education level and social welfare dependence, GUI gathered information on the financial stress experienced by parents of the families who participated[30]. Experience of financial stress is not the same as social welfare dependence or predicted earnings from occupation, since it relates to the level of financial demand experienced by the family, for example in mortgage and bill repayments, medical, school and other costs. It may also be related to money management skills in some cases. Table 4.8 shows the percentages of children in each SEN group whose parents report varying levels of financial stress. Across all children, 32 per cent of parents reported no financial difficulties, 60 per cent reported some and 8 per cent reported significant difficulties. Financial stress is more prevalent among the families of children with special educational needs even before the full scale of the recession was felt in Ireland (first two rows of the table); for example, while 6 per cent of children without special educational needs were in families reporting significant difficulties, this figure is over 13 per cent for children with such needs.

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[30] Parents were asked the degree of difficulty experienced in making ends meet, with response options as follows: with great difficulty / with difficulty / with some difficulty / fairly easily / easily / very easily. The first two response options were recoded to ‘significant difficulties’, the middle two to ‘some difficulties’, and the last two to ‘no difficulties’.

Table 4.8. Percentages of SEN groups with parents reporting varying degrees of financial stress

SEN group	No difficulties	Some difficulties	Sig difficulties
No SEN	34.6%	59.3%	6.1%
Any SEN	24.5%	62.0%	13.4%
Of those with any SEN…			
Medium risk SEBD only	22.3%	61.1%	16.6%
High risk SEBD only	25.1%	62.5%	12.4%
GLD (including some cases with another SEN)	24.8%	67.9%	7.3%
GLD with medium or high risk SEBD	16.0%	75.2%	8.8%
Dyslexia (including some cases with another SEN)	31.2%	55.9%	12.9%
Dyslexia with medium or high risk SEBD	20.0%	42.0%	38.0%
Speech and language disorder (including some cases with another SEN)	44.0%	49.0%	7.0%
Speech and language disorder with medium or high risk SEBD	27.2%	55.4%	17.4%
Autistic spectrum disorder or Asperger's syndrome	26.1%	59.4%	14.5%
Physical or sensory disability only	29.4%	67.6%	2.9%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	21.7%	70.1%	8.3%
Other SEN	22.0%	65.4%	12.6%
All children	31.8%	60.1%	8.1%

Financial stress also varied significantly across the 12 SEN groups (χ^2=328.022, df=24, p<.001). Children with dyslexia and SEBD stand out as being in families under considerable financial stress – 38 per cent of the parents of these children reported significant financial difficulties. In contrast, only 3 per cent of the group with physical or sensory difficulties reported significant difficulties.

In summary, an examination of the socioeconomic characteristics of children with and without special educational needs shows that the former tend to come from families that are less socioeconomically advantaged, have a higher reliance on social welfare payments, higher levels of financial stress, and lower levels of parental education. Some of the SEN groups stand out as being particularly disadvantaged on these measures: high risk SEBD, SLD and SEBD, GLD, GLD and SEBD, physical or sensory disability with SEBD and / or other SEN, and other SEN. It is noteworthy that many of these groups include children with SEBD. In contrast, some other children, particularly those with a physical or sensory disability, are similar to their peers without special educational needs on these measures.

4.4 Social, emotional and educational environments of children

Table 4.9 provides information on the home, social and educational environments of children, as indicated by four items: a TV, computer and games console in the child's bedroom, and the number of children's books in the child's home[31].

Across all children, about 45 per cent had a TV in their bedroom, 8 per cent had a computer, and 35 per cent had a games console. Almost three-fifths (56 per cent) had more than 30 children's books at home. There is considerable variation across the groups on all three measures. For example, having a TV in the bedroom ranged from 42 per cent (no SEN) to 63 per cent (GLD with SEBD) while having more than 30 children's books ranged from 36-37 per cent (GLD and SLD with SEBD) to 80 per cent (ASD). Comparing children with and without special educational needs (the first two rows of the table), it can be seen that the former group is slightly more likely to have a TV and games console in their bedrooms, and slightly less likely to have more than 30 books at home, than children without special educational needs.

Having a TV in the child's bedroom was more common in some groups, including GLD with SEBD (63 per cent), high risk SEBD (58 per cent), dyslexia with SEBD (57 per cent), and ASD (54 per cent). Children in three of these groups (that is, with the exception of dyslexia with SEBD) were also more likely to have a computer in their bedrooms, along with children with a physical or sensory disability, SEBD, and other SEN. Games consoles follow a broadly similar pattern.

In contrast, children with ASD, and with a physical or sensory disability, had more children's books at home, and low numbers here were associated with some SEN groups, including GLD (37 per cent with more than 30 books), SLD with SEBD (36 per cent), and other SEN (42 per cent). All these variations across SEN groups are statistically significant (with χ^2 ranging from 57.032 to 135.041, df=12, p<.001 in all cases).

Figure 4.2 illustrates the data shown in Table 4.9.

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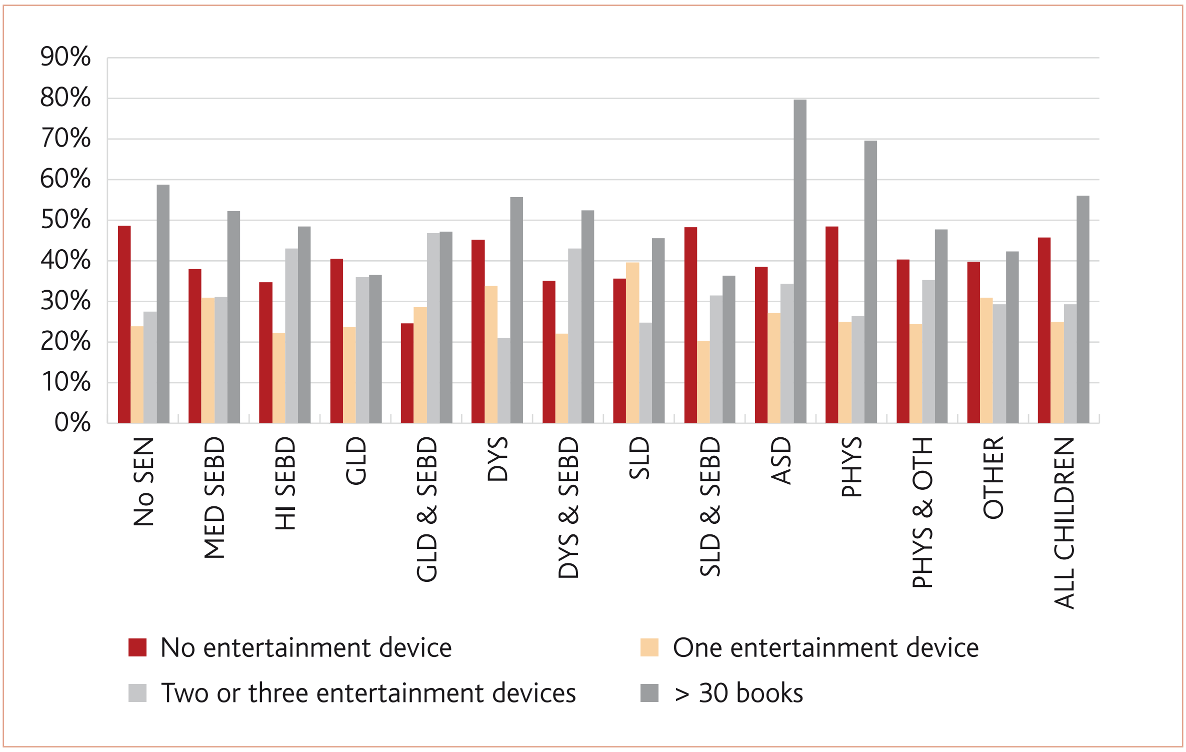
[31] Respondents were not asked about the total number of books in the home, a question commonly asked in other social / educational surveys.

Table 4.9. Percentages of SEN groups with a TV, computer, and games console in the child's bedroom, and with more than 30 children's books at home

SEN group	TV	Computer	Games console	> 30 books
No SEN	41.8%	7.1%	33.4%	58.7%
Any SEN	52.0%	9.1%	39.4%	49.2%
Of those with any SEN…				
Medium risk SEBD only	50.7%	6.5%	39.6%	52.3%
High risk SEBD only	57.6%	14.4%	44.8%	48.4%
GLD (including some cases with another SEN)	52.4%	8.1%	41.9%	36.6%
GLD with medium or high risk SEBD	63.2%	13.6%	51.2%	47.2%
Dyslexia (including some cases with another SEN)	47.6%	3.8%	26.9%	55.6%
Dyslexia with medium or high risk SEBD	57.0%	9.0%	49.0%	52.5%
Speech and language disorder (including some cases with another SEN)	44.6%	6.9%	40.6%	45.5%
Speech and language disorder with medium or high risk SEBD	44.0%	6.7%	35.2%	36.3%
Autistic spectrum disorder or Asperger's syndrome	53.6%	17.4%	30.4%	79.7%
Physical or sensory disability only	44.1%	2.9%	30.4%	69.6%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	52.2%	12.8%	36.7%	47.8%
Other SEN	50.4%	9.4%	35.1%	42.3%
All children	44.6%	7.6%	35.0%	56.0%

Figure 4.2. Percentages of children with none, one, and two or more entertainment devices in their bedroom, and percentages with more than 30 children's books at home, by SEN group



Parents were asked about the frequency with which they helped their children with homework and this information is shown in Table 4.10. Generally, helping with homework was common, with 72 per cent of parents overall indicating that they regularly or nearly always helped. About one in ten parents reported rarely or never helping with homework. Parents of children with special educational needs reported helping them with homework significantly more frequently than parents of children without such needs (79 per cent of parents of children with special educational needs helped nearly always or regularly, compared with 69 per cent of parents of those without such needs).

Frequency of helping with homework varied across the 12 SEN groups: it was lower in some, namely children with medium and high risk SEBD, and with a physical or sensory disability, and higher for others, that is, children with dyslexia with and without SEBD, with physical or sensory disability SEBD and / or other SEN, and with other SEN. This variation is statistically significant (χ^2 = 196.593, df=36, p<.001).

Table 4.10. Frequency of parents helping with homework, by SEN group

SEN group	Nearly always	Regularly	Now and again	Rarely/ never
No SEN	48.3%	20.9%	19.5%	11.3%
Any SEN	59.7%	19.1%	12.9%	8.2%
Of those with any SEN...				
Medium risk SEBD only	52.0%	22.5%	14.1%	11.5%
High risk SEBD only	50.5%	20.1%	17.9%	11.4%
GLD (including some cases with another SEN)	57.3%	21.5%	11.4%	9.8%
GLD with medium or high risk SEBD	64.8%	16.8%	13.6%	4.8%
Dyslexia (including some cases with another SEN)	71.5%	15.1%	7.0%	6.5%
Dyslexia with medium or high risk SEBD	78.0%	8.0%	9.0%	5.0%
Speech and language disorder (including some cases with another SEN)	61.0%	22.0%	12.0%	5.0%
Speech and language disorder with medium or high risk SEBD	67.4%	12.8%	10.5%	9.3%
Autistic spectrum disorder or Asperger's syndrome	67.2%	13.4%	11.9%	7.5%
Physical or sensory disability only	48.5%	26.5%	20.6%	4.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	69.9%	15.7%	13.7%	0.7%
Other SEN	67.5%	18.3%	9.3%	4.9%
All children	51.5%	20.4%	17.7%	10.5%

Table 4.11 examines the distribution of teacher perceptions of the levels of care children receive at home across SEN group[32]. Overall, care levels were perceived as high, with teachers reporting that only 3.1 per cent of all children showed some signs of lack of basic care. However, there are large differences between children with and without special educational needs on this measure. The first two rows of Table 4.11 indicate that while only 1 per cent of children without special educational needs show signs of lack of basic care, this figure is 8 per cent for children with special educational needs. Teachers reported higher levels of signs of lack of basic care among some of the 12 groups, exceeding 12 per cent in children with high risk SEBD only, a GLD with medium or high risk SEBD, SLD with medium or high risk SEBD, ASD, and dyslexia with SEBD. This variation is both substantial and significant (χ^2=1217.017, df=24, p<.001).

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[32] This measure was constructed on the basis of teacher responses of never / rarely / sometimes / often / always with respect to which the child arrived for school: inadequately dressed for the weather conditions; too tired to participate in class; without lunch or snack; hungry; with a general lack of cleanliness. These were re-scored as never / rarely=0, sometimes=0.5, frequently=1, always=2 and summed. Then, values of 0 were recoded to the first category (no signs of lack of basic care), 0.5 to 1.0 was recoded to the second, and values at 1.5 or higher were recoded into the third.

Table 4.11. Distribution of SEN groups across levels of basic care

SEN group	No signs of lack of basic care	Few signs of lack of basic care	Signs of lack of basic care
No SEN	93.6%	5.2%	1.1%
Any SEN	71.8%	20.1%	8.1%
Of those with any SEN…			
Medium risk SEBD only	74.8%	20.7%	4.5%
High risk SEBD only	53.3%	29.2%	17.5%
GLD (including some cases with another SEN)	88.4%	7.3%	4.3%
GLD with medium or high risk SEBD	61.8%	22.0%	16.3%
Dyslexia (including some cases with another SEN)	88.8%	10.6%	0.6%
Dyslexia with medium or high risk SEBD	48.0%	40.0%	12.0%
Speech and Language disorder (including some cases with another SEN)	81.0%	17.0%	2.0%
Speech and language disorder with medium or high risk SEBD	49.4%	36.5%	14.1%
Autistic spectrum disorder or Asperger's syndrome	56.1%	30.3%	13.6%
Physical or sensory disability only	86.6%	11.9%	1.5%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	77.5%	15.2%	7.3%
Other SEN	76.0%	15.9%	8.2%
All children	87.4%	9.5%	3.1%

Table 4.12 compares the number of adverse events[33] that children had experienced in their lives across the SEN groups. Note that the questionnaire did not ask when these events happened, just whether or not they had occurred. A majority of all children (64 per cent) had experienced one or more such life events, and close to one in ten (9.3 per cent) experienced three or more. Twice as many children with special educational needs (14.6 per cent) than those without (7.2 per cent) experienced three or more of these adverse life events.

There is quite large, and significant, variation across the 12 SEN groups ($\chi^2=234.453$, df=36, p<.001). Adverse life events are more prevalent among children with ASD, GLD, and SLD with SEBD. They are also more prevalent in children with medium and high risk SEBD only, and in children with dyslexia (both with and without SEBD).

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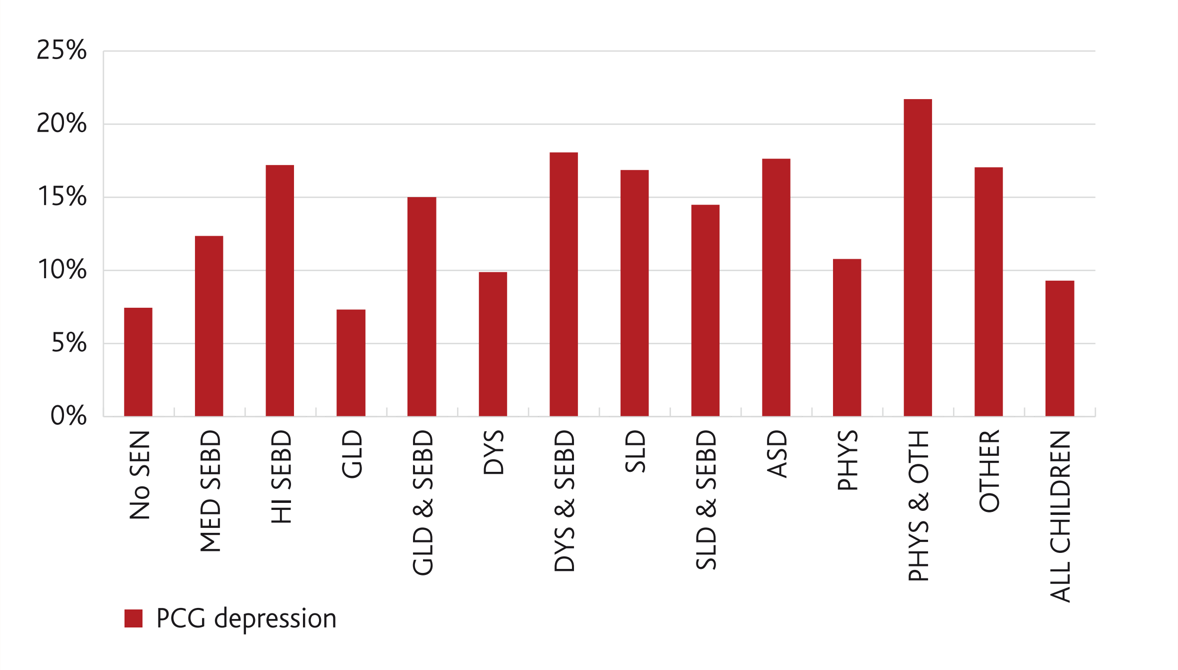
[33] The number of adverse events is based on a series of yes / no responses from parents to the following 12 items: death of a parent; death of a close family member; death of a close friend; divorce / separation of parents; staying in foster home / residential care; serious illness / injury; serious illness / injury; drug taking / alcoholism in the immediate family; mental disorder in the immediate family; conflict between parents; parent in prison; other disturbing event. The measure is somewhat simplistic since it assumes that the severity of each event is equivalent.

Table 4.12. Distribution of SEN groups across number of adverse events experienced

SEN group	None	One	Two	Three or more
No SEN	38.0%	39.4%	15.4%	7.2%
Any SEN	30.4%	35.6%	19.3%	14.6%
Of those with any SEN…				
Medium risk SEBD only	27.2%	34.8%	22.8%	15.2%
High risk SEBD only	28.3%	36.1%	18.9%	16.7%
GLD (including some cases with another SEN)	26.9%	40.0%	13.9%	19.2%
GLD with medium or high risk SEBD	28.8%	43.2%	20.8%	7.2%
Dyslexia (including some cases with another SEN)	33.0%	35.6%	16.5%	14.9%
Dyslexia with medium or high risk SEBD	34.0%	26.0%	25.0%	15.0%
Speech and language disorder (including some cases with another SEN)	40.2%	28.4%	23.5%	7.8%
Speech and language disorder with medium or high risk SEBD	38.9%	23.3%	18.9%	18.9%
Autistic spectrum disorder or Asperger's syndrome	29.0%	26.1%	24.6%	20.3%
Physical or sensory disability only	31.3%	46.3%	11.9%	10.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	38.0%	28.5%	20.3%	13.3%
Other SEN	30.5%	44.4%	14.0%	11.1%
All children	35.9%	38.3%	16.5%	9.3%

GUI collected information on the well-being of children's parents, including the presence of any symptoms of depression in primary caregivers, 97.8 per cent of which were female. This information is available as a depression score and as a binary indicator. Figure 4.3 shows the prevalence of depression (on the basis of the binary indicator) across SEN groups. Across all children, just over 9 per cent of primary caregivers were classified as likely experiencing depression. Close to double the number of primary caregivers or more were classified as depressed in some SEN groups compared with the no-SEN group, namely children with high risk SEBD, with dyslexia and SEBD, with an SLD, ASD, and a physical or sensory disability with SEBD and other SEN. This variation is significant (χ^2=122.581, df=12, p<.001).

Figure 4.3. Prevalence of primary caregiver depression, by SEN group



Summing up, this section examined children's social, emotional and educational environments. With respect to entertainment and books in the home, we found children with special educational needs were slightly more likely to have a TV and games console in their bedrooms, and slightly less likely to have more than 30 books at home, than children without. We also found that about four in five parents of these children regularly helped with their homework, compared with seven in ten children without such needs. Therefore while statistically significant, differences are not large between children with and without special educational needs on these characteristics.

In contrast, large and statistically significant variation was found between SEN groups on a broad indicator of basic care, as reported by teachers. While only 1 per cent of children without special educational needs showed signs of lack of basic care, this figure is 8 per cent for all children with such needs, and is 12 per cent or higher in those with high risk SEBD only, a GLD with medium or high risk SEBD, SLD with medium or high risk SEBD, ASD, and dyslexia with SEBD. Also, about one in seven children with special educational needs had experienced three or more adverse life events, which is twice the rate of that for those without. The higher level of primary caregiver depression among children with special educational needs is therefore not surprising, given these other findings on children's socioeconomic, home and emotional environments.

4.5 Summary of findings on individual background characteristics

The analyses in the first part of this chapter reveal similarities and differences among SEN groups and between children with and without special educational needs, and confirm the heterogeneity of the characteristics and experiences of children with special educational needs.

4.5.1 Demographic characteristics

Although most children with special educational needs were boys, this was not the case across all SEN groups. Boys were particularly prevalent in some groups, namely ASD, high risk SEBD, and SLD, while there was a more even gender distribution across the medium risk SEBD, GLD, dyslexia, physical or sensory disabilities, and the 'other SEN' groups.

Family size did not vary appreciably across the SEN groups, while some of them were more likely to be in one-parent households (e.g. children with an SEBD, dyslexia with SEBD, and SLD with SEBD). Country of birth did not vary markedly across SEN groups, nor did language spoken at home.

4.5.2 Socioeconomic characteristics

Children with special educational needs are more socioeconomically disadvantaged than their peers without, but there are variations in the extent to which the 12 SEN groups are disadvantaged. Children from more socioeconomically disadvantaged homes (as indicated by socioeconomic scores, social welfare dependence, parental education, and presence of financial stress) were particularly over-represented in the high risk SEBD, GLD, GLD with SEBD, SLD with SEBD, and a physical or sensory disability with SEBD and other SEN groups. It is noteworthy that SEBD features in many of these groups of children.

4.5.3 Social, emotional and educational environments

Having entertainment devices in the study child's bedroom was more common in some groups, including GLD with SEBD, high risk SEBD, and dyslexia with SEBD. Children with a GLD and an SLD with SEBD had fewer children's books in their home than on average, while children with ASD or a physical or sensory disability had the most books. It was also found that most parents helped with their children's homework on at least a regular basis in most SEN groups, help was slightly less frequent among children with medium and high risk SEBD, and children with a physical or sensory disability.

Teachers provided reports on the extent to which they felt children showed signs of lack of basic care. Just 3 per cent of all children showed such signs, in teachers' views. This varied enormously across the 12 SEN groups, exceeding 12 per cent in children with high risk SEBD only, a GLD with SEBD, SLD with SEBD, ASD, and dyslexia with SEBD. Adverse life events were also more prevalent among children with special educational needs compared to those without, particularly those with ASD, GLD, and SLD with SEBD. Primary caregiver depression was more prevalent in some groups also, including children with high risk SEBD, with dyslexia and SEBD, with an SLD, ASD, and a physical or sensory disability with SEBD and other SEN.

4.5.4 Conclusion to first part of Chapter 4

This section confirms that the socioeconomic and home environments of children need to be taken into account when considering their special educational needs. While it is certainly not possible or appropriate to consider cause and effect, some findings presented here indicate that some groups of children with special educational needs require supports that are not solely educational. Two of the most striking findings relate to the differences in basic care and adverse life events experienced by the children in the different groups. The other finding that emerges as particularly noteworthy relates to the relatively challenging socioeconomic and home environments of children with SEBD, whether occurring on its own or with other SEN. Many of these findings are worth following up with the Wave II (age 13) data, given that the socioeconomic and home environments of families change over time, and also that the economic climate is changing.

4.6 Overview of school, community and classroom characteristics

In the second part of this chapter, we examine school, community and class characteristics of children in the GUI study. The aim is to give a general overview of the community, school and classroom environments of children in the different SEN groups. The main objective is to examine whether or not sub-groups of children with differing special educational needs are differentially clustered in communities, schools and classes with certain characteristics. Readers are reminded that the GUI sample was not specifically designed to allow for detailed inferences to be made about school and classroom characteristics (see Section 2.1 in Chapter 2), and that the results are intended to paint a broad contextual picture only. We provide a summary of main findings as they relate to schools, classes and communities at the end of the chapter.

4.7 Supports received by children with special educational needs

This section uses data from children's teachers to describe the types of supports and interventions received by children with special educational needs at the time of Wave I data collection. Table 4.13 shows the percentages of children in each SEN group receiving speech and language therapy, with a psychological assessment, behaviour management support, LS / RT support, or other type of support, as well as the percentage of children in each group with any support(s). As expected, many more children with special educational needs (40 per cent) than without (2 per cent) received any kind of support. Also, the bulk of it was LS / RT support (received by 36 per cent of children with special educational needs) and psychological assessments (9 per cent). Note that we cannot infer from this information whether the supports are appropriate or adequate for each group; the table's purpose is to show how support is distributed across children with various special educational needs.

Table 4.13. Types of support received by children through school, by SEN group

SEN group	Speech and language therapy	Psycho-logical assess-ment	Behaviour manage-ment	LS / RT support	Other support	Any of these supports
No SEN	0.0%	0.1%	0.0%	1.5%	0.1%	1.9%
Any SEN	2.9%	9.1%	1.9%	36.3%	2.5%	40.3%
Of those with any SEN…						
Medium risk SEBD only	0.0%	1.1%	0.2%	7.4%	0.3%	8.2%
High risk SEBD only	0.0%	4.9%	2.2%	19.7%	2.7%	25.1%
GLD (including some cases with another SEN)	0.0%	4.9%	0.0%	89.8%	0.0%	90.7%
GLD with medium or high risk SEBD	1.6%	25.4%	8.8%	84.0%	4.8%	91.2%
Dyslexia (including some cases with another SEN)	0.0%	10.8%	1.1%	46.5%	0.5%	49.2%
Dyslexia with medium or high risk SEBD	0.0%	25.0%	6.0%	61.4%	0.0%	66.0%
Speech and language disorder (including some cases with another SEN)	15.8%	9.9%	0.0%	43.6%	1.0%	50.5%
Speech and language disorder with medium or high risk SEBD	25.3%	31.9%	1.1%	60.4%	5.5%	62.6%
Autistic spectrum disorder or Asperger's syndrome	10.1%	31.9%	14.3%	42.9%	5.8%	56.5%
Physical or sensory disability only	0.0%	0.0%	0.0%	23.5%	1.5%	23.5%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	10.2%	19.6%	3.8%	55.1%	5.7%	63.9%
Other SEN	2.0%	12.2%	0.8%	49.6%	0.4%	51.4%
All children	0.8%	2.8%	0.5%	12.1%	0.5%	13.2%

Looking at the last column of Table 4.13, wide variation across groups is apparent. For example, over 80 per cent of children with GLD, and GLD with SEBD, had support at the time of the Wave I data collection. Most of this was through LS / RT. Around 50 per cent or more of children in several other groups received support – these are dyslexia, dyslexia with SEBD, SLD, SLD with SEBD, ASD, and other SEN.

Levels of support were much lower for children with medium and high risk SEBD, unless this co-occurred with another SEN. For example, 9 per cent of children with GLD and SEBD received behaviour management supports, compared with just 2 per cent with high risk SEBD only.

Unfortunately, the GUI dataset contains no information on whether children were in special or 'mainstream' classes. However, the data show that just 2.1 per cent of children with special educational needs (that is, 41 children) were in special schools. Children most likely to be in these were those with ASD (21 per cent of all children with ASD), physical or sensory disability with SEBD and / or other SEN (11 per cent), and with SLD and SEBD (8 per cent). Since these numbers are so small, we do not pursue analysis of children in special schools.

4.8 Characteristics of children's schools and communities

This section examines the distribution of children with special educational needs across DEIS status of schools[34], the urban / rural nature of the local area, and the resources available in, and perceived safety of, the children's local communities.

Table 4.14 shows the percentages of children enrolled in DEIS Band 1, DEIS Band 2, rural DEIS, and non-DEIS schools. There is significant variation across SEN groups in how they are distributed across DEIS school classifications (χ^2=225.407, df =36, p<.001). Across all children, most – about 81 per cent – were attending non-DEIS schools; 8 per cent were in DEIS Band 1 schools, 6 per cent in DEIS Band 2 schools, and 4 per cent in rural DEIS schools.

Comparing children with and without special educational needs (the first two rows of the table), there are differences in how these children are distributed across school DEIS categories. In particular, while 12 per cent of children with special educational needs were in DEIS Band 1 schools, 7 per cent of those without were in these schools.

There are relatively high percentages of children with medium and high risk SEBDs (15 per cent and 20 per cent respectively), and physical or sensory disability with medium or high risk SEBD and / or other SEN (17 per cent), in DEIS Band 1 schools. Variation is less marked between SEN groups in DEIS Band 2 and rural DEIS schools (though the high percentage of SLD with SEBD in rural DEIS schools – 12 per cent compared with 4 per cent on average – is noteworthy).

While for most SEN groups, enrolment in non-DEIS schools tended to be less prevalent compared to children with no special educational needs (and particularly so in those with medium and high risk SEBD, SLD with SEBD, and physical or sensory disability with medium or high risk SEBD and / or other SEN), enrolment rates of other groups, including children with dyslexia (with and without SEBD) and ASD were slightly higher in non-DEIS schools.

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[34] DEIS, an initiative aimed at tackling educational disadvantage, began in 2005. Based on an analysis of the characteristics of pupils and the local communities, DEIS Band 1 schools are primary schools in urban areas deemed to be among the most socioeconomically disadvantaged. DEIS Band 2 schools, also in urban areas, are deemed less socioeconomically disadvantaged and hence receive slightly fewer supports from the Department of Education and Skills. For example, DEIS Band 1 schools received designated staffing to ensure a pupil-teacher ratio of 22:1 while Band 2 schools do not; however both Band 1 and Band 2 schools receive a grant paid based on level of disadvantage and enrolment as well as other supports. Rural DEIS schools also receive this grant aid along with other supports, and are located in rural communities. See www.education.ie.

Table 4.14. Distribution of children across school DEIS categories, by SEN group

SEN group	DEIS Band 1	DEIS Band 2	Rural DEIS	Non-DEIS
No SEN	7.0%	5.4%	4.2%	83.4%
Any SEN	12.1%	7.4%	4.1%	76.5%
Of those with any SEN…				
Medium risk SEBD only	14.5%	8.1%	2.9%	74.5%
High risk SEBD only	20.8%	7.8%	2.2%	69.3%
GLD (including some cases with another SEN)	5.7%	9.8%	6.1%	78.5%
GLD with medium or high risk SEBD	7.3%	7.3%	6.5%	79.0%
Dyslexia (including some cases with another SEN)	1.6%	9.1%	1.6%	87.7%
Dyslexia with medium or high risk SEBD	8.9%	1.0%	4.0%	86.1%
Speech and language disorder (including some cases with another SEN)	7.0%	9.0%	3.0%	81.0%
Speech and language disorder with medium or high risk SEBD	9.9%	4.4%	12.1%	73.6%
Autistic spectrum disorder or Asperger's syndrome	5.9%	7.4%	0.0%	86.8%
Physical or sensory disability only	7.2%	5.8%	7.2%	79.7%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	17.2%	3.2%	6.4%	73.2%
Other SEN	13.8%	7.7%	4.5%	74.0%
All children	8.4%	6.0%	4.1%	81.4%

Table 4.15 shows the percentages of children in the various SEN groups living in urban and rural areas, split into four groups: small rural communities, small towns, large towns or suburb of a city, and cities[35]. Across all children, 42 per cent were living in small rural communities, 13 per cent in small towns, 26 per cent in large towns and city suburbs, and 19 per cent in cities. Percentages of children with and without special educational needs (first two rows of the table) are similar across these categories. There is slight variation across SEN groups and it is statistically significant (χ^2=79.708, df =36, p<.001).

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[35] This measure was derived from parent responses to a question on the region they lived in. 'Small rural community' is a community with fewer than 1,500 inhabitants; 'Small town' is a community with 1,500 up to 10,000 inhabitants; 'Large town or city suburb' is a community of more than 10,000 inhabitants, and 'City' refers to Cork, Dublin, Galway, Limerick and Waterford cities.

Table 4.15. Distribution of children across urban/rural community, by SEN group

SEN group	Small rural community	Small town	Large town or city suburb	City
No SEN	43.5%	12.5%	25.1%	18.9%
Any SEN	39.1%	14.0%	28.2%	18.7%
Of those with any SEN…				
Medium risk SEBD only	37.5%	15.5%	27.6%	19.4%
High risk SEBD only	33.2%	11.1%	34.8%	21.0%
GLD (including some cases with another SEN)	43.5%	15.4%	26.0%	15.0%
GLD with medium or high risk SEBD	39.2%	20.0%	27.2%	13.6%
Dyslexia (including some cases with another SEN)	40.1%	14.4%	23.5%	21.9%
Dyslexia with medium or high risk SEBD	46.0%	14.0%	22.0%	18.0%
Speech and language disorder (including some cases with another SEN)	49.0%	18.0%	17.0%	16.0%
Speech and language disorder with medium or high risk SEBD	48.4%	14.3%	20.9%	16.5%
Autistic spectrum disorder or Asperger's syndrome	32.9%	17.1%	21.4%	28.6%
Physical or sensory disability only	38.2%	10.3%	30.9%	20.6%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	33.5%	8.2%	36.7%	21.5%
Other SEN	42.3%	12.6%	30.5%	14.6%
All children	42.3%	12.9%	25.9%	18.9%

Children with ASD were clustered more in cities compared to the overall average, while those with SLD (with and without SEBD) and dyslexia with SEBD were more clustered in small rural communities. Also, children with high risk SEBD, and with a physical or sensory disability with medium or high risk SEBD and / or other SEN, were clustered more in large towns and cities than in small towns and rural communities than the overall average.

Table 4.16 shows the distribution of children across the SEN groups across three categories of community resources: poorly resourced, fairly resourced and well resourced[36]. Across all children, 11 per cent were classified as living in a poorly-resourced community, 22 per cent in a fairly well-resourced community, and 67 per cent in a well-resourced community. The distribution of children with and without special educational needs across communities in this respect (first two rows of the table) is very similar. Variation across the 12 SEN groups, though small, is statistically significant (χ^2=55.484, df =24, p<.001). Fewer children in some of the SEN groups than on average overall lived in well-resourced communities: these were children with GLD, dyslexia with SEBD, and SLD, both with and without SEBD.

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[36] This measure was derived from parent responses on the availability of the following facilities resources in their local area: regular public transport, GP or health clinic, schools (primary or post-primary), public library, social welfare office, bank or credit union, grocery shop, recreational facilities appropriate for a nine-year-old, and park or playground. Communities with two or fewer of these resources were classed as poor, those with three to six as fair, and the remainder as well-resourced.

Table 4.16. Distribution of children across categories of community resources, by SEN group

SEN group	Poorly resourced	Fairly resourced	Well resourced
No SEN	11.2%	21.2%	67.6%
Any SEN	10.9%	23.9%	65.2%
Of those with any SEN…			
Medium risk SEBD only	10.8%	26.3%	62.9%
High risk SEBD only	11.3%	18.6%	70.1%
GLD (including some cases with another SEN)	9.3%	32.8%	57.9%
GLD with medium or high risk SEBD	11.1%	26.2%	62.7%
Dyslexia (including some cases with another SEN)	10.2%	18.8%	71.0%
Dyslexia with medium or high risk SEBD	13.9%	28.7%	57.4%
Speech and language disorder (including some cases with another SEN)	16.7%	25.5%	57.8%
Speech and language disorder with medium or high risk SEBD	18.7%	13.2%	68.1%
Autistic spectrum disorder or Asperger's syndrome	4.3%	26.1%	69.6%
Physical or sensory disability only	11.8%	19.1%	69.1%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	6.3%	24.7%	69.0%
Other SEN	11.4%	21.5%	67.1%
All children	11.1%	22.0%	66.9%

Table 4.17 shows the distribution of children across the SEN groups across three categories of community safety: safe, mostly safe and unsafe[37]. On average, 60 per cent of children lived in communities that could be considered safe, 29 per cent in mostly safe communities, and 11 per cent in unsafe communities. Children with special educational needs were somewhat more likely to live in unsafe communities compared with children without such needs (15 per cent compared with 9 per cent; first two rows of the table). Variation across SEN groups is statistically significant (χ^2=142.293, df =24, p<.001). Community safety was lowest among three groups, over 20 per cent of whom lived in unsafe communities: SLD with SEBD, physical or sensory disability with medium or high risk SEBD and / or other SEN, and other SEN.

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[37] This measure was derived from parent perceptions of the safety of their local area in response to five items. The first two concerned the frequency of vandalism and of people drinking and taking drugs (rated on a four-point scale ranging from 'very common' to 'not at all common'), while the other three comprised agree-disagree statements concerning their local community as follows: it is safe to walk alone after dark, it is safe for children to play outside during the day, and there are safe parks or play spaces.

Table 4.17. Distribution of children across categories of community safety, by SEN group

SEN group	Safe	Mostly safe	Unsafe
No SEN	62.1%	28.6%	9.3%
Any SEN	55.3%	29.3%	15.4%
Of those with any SEN…			
Medium risk SEBD only	55.9%	27.3%	16.8%
High risk SEBD only	53.0%	31.9%	15.1%
GLD (including some cases with another SEN)	55.3%	32.5%	12.2%
GLD with medium or high risk SEBD	49.6%	37.6%	12.8%
Dyslexia (including some cases with another SEN)	64.7%	28.9%	6.4%
Dyslexia with medium or high risk SEBD	52.0%	32.0%	16.0%
Speech and language disorder (including some cases with another SEN)	50.5%	26.7%	22.8%
Speech and language disorder with medium or high risk SEBD	57.1%	33.0%	9.9%
Autistic spectrum disorder or Asperger's syndrome	66.7%	15.9%	17.4%
Physical or sensory disability only	61.2%	35.8%	3.0%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	51.6%	28.0%	20.4%
Other SEN	53.3%	24.4%	22.4%
All children	60.2%	28.8%	11.0%

There are inter-relationships among school DEIS status and community characteristics (Table 4.18). For example, 28 per cent of children in DEIS Band 1 schools are in communities that could be classified as unsafe (compared with 9 per cent overall), while 21 per cent of children in rural DEIS schools are in poorly-resourced areas (compared with 11 per cent of all children).

Table 4.18. Community resources and community safety, by school DEIS category

DEIS classification	Community resources			Community safety		
	Poorly resourced	Fairly resourced	Well resourced	Safe	Mostly safe	Unsafe
DEIS Band 1	5.0%	15.6%	79.4%	41.3%	30.9%	27.9%
DEIS Band 2	4.7%	16.7%	78.6%	60.2%	25.8%	14.0%
Rural DEIS	21.4%	31.7%	47.0%	66.5%	27.8%	5.7%
Non-DEIS	11.5%	21.3%	67.2%	63.3%	29.0%	7.8%
Total	11.0%	21.1%	67.9%	61.9%	28.9%	9.2%

4.9 Characteristics of children's school environments

This section begins by examining the characteristics of pupils in the school attended by the GUI children. First, we describe the distribution of pupils by prevalence of literacy, numeracy and social, emotional and behavioural difficulties. Then, we examine the percentages of pupils enrolled in schools with language difficulties, physical or sensory disabilities, and with learning disabilities. All of these measures are based on principals' reports. We have not provided a combined estimate of SEN in schools since, as will be seen, some questions were asked in categorical format, while others asked for the actual numbers of pupils, thereby preventing the computation of an overall percentage[38]. Towards the end of this section, we report on pupil-teacher ratios and pupil-SEN staff ratios, attendance rates, and school admission policies.

Principals were asked to estimate the percentages of schoolchildren with literacy and numeracy problems, and with SEBD. Responses were categorical, ranging from 'none' to 'more than 40 per cent'. For reporting purposes, we have grouped these into three categories for estimates of literacy and numeracy problems: none or less than 10 per cent, 10-25 per cent, and more than 25 per cent. Just two categories used for estimates of SEBD prevalence (less than 10 per cent and more than 10 per cent), since few schools were described by principals as having more than 25 per cent of pupils with SEBD enrolled.

Focusing on the right-hand column of Tables 4.19 and 4.20 which show estimates for high prevalence of literacy and numeracy problems, it can be seen that, across all children, about 13 per cent are in schools where more than one-quarter of pupils have literacy problems, and around 16 per cent are in schools where more than one-quarter of pupils have numeracy problems. Looking at the first two rows of each table, it can also be seen that children with special educational needs are in schools where literacy and numeracy problems are a lot more prevalent. For example, Table 4.19 indicates that 19 per cent of children with special educational needs are in schools where more than 25 per cent of pupils have literacy problems, compared with 11 per cent of children without special educational needs. The prevalence of literacy and numeracy problems varies significantly across the 12 SEN groups (for literacy, χ^2=228.269, df =24, p<.001; for numeracy, χ^2=189.083, df =24, p<.001). Literacy and numeracy problems are particularly prevalent in the schools attended by three of the SEN groups: ASD, physical or sensory disability with SEBD and other SEN, and other SEN. They are also quite prevalent among two further groups: children with medium and high risk SEBD.

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[38] Also, the wording and format of questions concerning these areas were not consistent across the principal and teacher questionnaires, so direct comparisons across the two are not possible.

Table 4.19. Distribution of pupils in the school by literacy problem prevalence, by SEN group

SEN group	None or less than 10%	10-25%	More than 25%
No SEN	40.9%	48.3%	10.8%
Any SEN	31.8%	48.9%	19.4%
Of those with any SEN…			
Medium risk SEBD only	34.0%	46.4%	19.6%
High risk SEBD only	27.1%	49.9%	23.1%
GLD (including some cases with another SEN)	24.1%	63.2%	12.7%
GLD with medium or high risk SEBD	29.5%	58.0%	12.5%
Dyslexia (including some cases with another SEN)	42.0%	44.9%	13.1%
Dyslexia with medium or high risk SEBD	33.0%	50.5%	16.5%
Speech and language disorder (including some cases with another SEN)	48.4%	38.7%	12.9%
Speech and language disorder with medium or high risk SEBD	32.1%	51.2%	16.7%
Autistic spectrum disorder or Asperger’s syndrome	36.5%	25.0%	38.5%
Physical or sensory disability only	32.8%	50.8%	16.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	30.1%	36.4%	33.6%
Other SEN	26.2%	53.3%	20.4%
All children	38.3%	48.5%	13.2%

Table 4.20. Distribution of pupils in the school by numeracy problem prevalence, by SEN group

SEN group	None or less than 10%	10-25%	More than 25%
No SEN	48.1%	38.3%	13.5%
Any SEN	39.9%	38.0%	32.0%
Of those with any SEN…			
Medium risk SEBD only	41.2%	36.3%	22.4%
High risk SEBD only	31.6%	43.5%	24.9%
GLD (including some cases with another SEN)	39.0%	46.8%	14.2%
GLD with medium or high risk SEBD	39.8%	38.9%	21.2%
Dyslexia (including some cases with another SEN)	55.4%	29.1%	15.4%
Dyslexia with medium or high risk SEBD	42.2%	44.4%	13.3%
Speech and language disorder (including some cases with another SEN)	52.7%	34.4%	12.9%
Speech and language disorder with medium or high risk SEBD	45.2%	34.5%	20.2%
Autistic spectrum disorder or Asperger's syndrome	40.4%	23.1%	36.5%
Physical or sensory disability only	41.9%	40.3%	17.7%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	36.4%	27.3%	36.4%
Other SEN	32.1%	41.5%	26.3%
All children	45.8%	38.2%	15.9%

Table 4.21 indicates significant variation across SEN groups in terms of the percentages of pupils in the schools in which they are enrolled with SEBD (χ^2=100.076, df =12, p<.001). Across all children, 19 per cent are enrolled in schools with more than 10 per cent of pupils with an SEBD, and 23 per cent of children with special educational needs (second row of the table) are enrolled in schools with more than 10 per cent of pupils with an SEBD. This exceeds 25 per cent in the medium and high risk SEBD groups, and the group with a physical or sensory disability with SEBD and / or other SEN. In addition, 45 per cent of the 69 children with ASD are in schools where more than 10 per cent of pupils have an SEBD.

Table 4.21. Distribution of pupils in the school by SEBD prevalence, by SEN group

SEN group	None or less than 10%	More than 10%
No SEN	83.0%	17.0%
Any SEN	76.8%	23.2%
Of those with any SEN…		
Medium risk SEBD only	73.6%	26.4%
High risk SEBD only	71.2%	28.8%
GLD (including some cases with another SEN)	83.1%	16.9%
GLD with medium or high risk SEBD	85.1%	14.9%
Dyslexia (including some cases with another SEN)	87.4%	12.6%
Dyslexia with medium or high risk SEBD	82.2%	17.8%
Speech and language disorder (including some cases with another SEN)	81.5%	18.5%
Speech and language disorder with medium or high risk SEBD	76.2%	23.8%
Autistic spectrum disorder or Asperger's syndrome	54.7%	45.3%
Physical or sensory disability only	86.9%	13.1%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	71.3%	28.7%
Other SEN	77.2%	22.8%
All children	81.3%	18.7%

Table 4.22 compares the percentages of pupils in schools with language difficulties (and whose first language is not the language of instruction), physical or sensory disabilities, and learning disabilities, as estimated by principals. Note that these three groups, as well as those represented in the previous three tables, are not mutually exclusive.

Across all pupils, 4.5 per cent of their peers had language difficulties, 1.3 per cent had physical disabilities, and 7.4 per cent had learning difficulties. All of these were somewhat more prevalent among students with special educational needs compared to those without (first two rows of the table). For example, while the prevalence of learning disabilities in the schools of pupils with no special educational needs was 6.8 per cent, it was 10.0 per cent for those with such needs.

Comparing the mean percentages across the 12 SEN groups, there is no statistically significant variation across them in terms of language difficulties. However, there is significant variation on the other two measures. On average, there are significantly more pupils with physical and / or learning disabilities in the schools of children in three of the SEN groups: SLD with SEBD, ASD, and physical or sensory disability with SEBD and / or other SEN. This is particularly marked in the case of the ASD group (recall, however, that about one in five children with ASD were attending special schools).

Table 4.22. Average percentages of pupils in children's schools with language difficulties, physical difficulties and learning disabilities, by SEN group

SEN group	% with language difficulties	% with physical disabilities	% with learning disabilities
No SEN	4.4%	0.9%	6.8%
Any SEN	5.3%	2.6%	10.0%
Of those with any SEN…			
Medium risk SEBD only	5.2%	1.0%	6.9%
High risk SEBD only	5.8%	1.0%	7.4%
GLD (including some cases with another SEN)	4.7%	1.1%	8.8%
GLD with medium or high risk SEBD	5.2%	1.0%	8.2%
Dyslexia (including some cases with another SEN)	3.3%	1.2%	8.3%
Dyslexia with medium or high risk SEBD	5.9%	2.7%	10.5%
Speech and language disorder (including some cases with another SEN)	4.6%	1.5%	9.1%
Speech and language disorder with medium or high risk SEBD	4.5%	5.5%	13.3%
Autistic spectrum disorder or Asperger's syndrome	4.6%	18.2%	25.5%
Physical or sensory disability only	5.9%	1.5%	8.4%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	4.8%	9.0%	18.7%
Other SEN	5.3%	1.1%	8.1%
All children	4.5%	1.3%	7.4%

Statistically significant differences (SEN groups compared to the no-SEN group) are in bold.

Table 4.23 shows the pupil-teacher ratio and the pupil-SEN staff ratio of children by SEN group. The pupil-teacher ratio is the number of pupils enrolled in the school divided by the number of teaching staff (with part-time staff weighted by 0.5). The pupil-SEN staff ratio is the number of pupils enrolled in the school divided by the sum of learning support and resource teachers, SNAs, language support teachers, and other support teaching staff (again weighting part-time teachers by 0.5). This ratio is a broad measure and should be interpreted as such. As noted earlier, we have no data on whether individual children were enrolled in special classes.

Across all children, the pupil-teacher ratio is 17.4 and the pupil-SEN staff ratio is 6.7. The pupil-teacher ratio is slightly lower for children with special educational needs compared to children without, while the pupil-SEN staff ratio is higher among pupils with special educational needs compared to those without. Pupil-teacher ratio varies little across the 12 SEN groups, though it is statistically significantly lower than the reference group in three instances (high risk SEBD, ASD, and physical or sensory disability with SEBD and other SEN. This is likely to be somewhat related to the distribution of these children across school DEIS categories. On the other hand, there is some variation across SEN groups in the pupil-SEN staff ratio, and this is particularly high for the group of children with a physical or sensory disability with SEBD and other SEN.

Table 4.23. Average pupil-teacher ratio and pupil-SEN staff ratio, by SEN group

SEN group	Pupil-teacher ratio	Pupil-SEN staff ratio
No SEN	17.68	6.07
Any SEN	16.82	8.37
Of those with any SEN…		
Medium risk SEBD only	17.23	6.23
High risk SEBD only	16.53	8.25
GLD (including some cases with another SEN)	16.89	8.68
GLD with medium or high risk SEBD	17.07	9.95
Dyslexia (including some cases with another SEN)	17.44	8.61
Dyslexia with medium or high risk SEBD	16.87	9.75
Speech and language disorder (including some cases with another SEN)	17.37	7.44
Speech and language disorder with medium or high risk SEBD	16.39	5.67
Autistic spectrum disorder or Asperger's syndrome	14.09	6.09
Physical or sensory disability only	17.77	8.27
Physical or sensory disability with medium or high risk SEBD and / or other SEN	15.33	14.71
Other SEN	16.99	9.89
All children	17.44	6.70

Significant differences (SEN groups compared to the no-SEN group) are in bold.

We can also examine schools in terms of admission policies (Table 4.24). Based on principals' responses, schools were grouped into four 'admission policy categories': schools where all applications were generally accepted, where family criteria (such as a sibling in the school) were applied, where religious or language criteria were applied (almost invariably these referred to Roman Catholicism or the Irish language), and where other criteria were applied. About seven in ten children attended schools with no stated admission criteria, 15 per cent in schools where family criteria were applied, 10 per cent with religious or language criteria, and 3.5 per cent applying other criteria. Admission policies are very similar across children with and without special educational needs (first two rows of the table). And, although there is statistically significant variation across SEN groups (χ^2=97.705, df =36, p<.001), it is difficult to discern a meaningful pattern in the variation. It can be noted, though, that 'other' admission criteria were applied more frequently in schools in which some of the SEN groups attended, that is, children with dyslexia and SEBD, SLD and SEBD, and ASD.

Table 4.24. Distribution of pupils across school admission policies, by SEN group

SEN group	All accepted	Family criteria	Religious or language criteria	Other criteria
No SEN	70.6%	15.6%	10.5%	3.4%
Any SEN	73.9%	12.2%	10.2%	3.8%
Of those with any SEN…				
Medium risk SEBD only	77.4%	11.2%	9.4%	2.0%
High risk SEBD only	73.9%	12.6%	10.3%	3.2%
GLD (including some cases with another SEN)	73.4%	14.1%	8.7%	3.8%
GLD with medium or high risk SEBD	77.9%	10.5%	10.5%	1.2%
Dyslexia (including some cases with another SEN)	69.9%	11.7%	15.3%	3.1%
Dyslexia with medium or high risk SEBD	63.6%	10.6%	15.2%	10.6%
Speech and language disorder (including some cases with another SEN)	68.6%	14.0%	12.8%	4.7%
Speech and language disorder with medium or high risk SEBD	71.4%	12.5%	7.1%	8.9%
Autistic spectrum disorder or Asperger's syndrome	68.1%	6.4%	4.3%	21.3%
Physical or sensory disability only	66.2%	16.2%	14.9%	2.7%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	76.8%	10.4%	8.0%	4.8%
Other SEN	76.0%	14.0%	8.4%	1.7%
All children	71.4%	14.8%	10.4%	3.5%

There are variations across SEN groups in terms of how they are clustered in schools with various attendance rates. Table 4.25 shows principals' estimates of the percentages of pupils in school who missed up to ten days, 11 to 20 days, and more than 20 days. Two-thirds of all pupils (68 per cent) were in schools with high attendance rates, 21 per cent with medium and 11 per cent with low attendance rates. Looking at the first two rows of the table, it can be seen that children with special educational needs were somewhat more clustered in schools with lower average attendance rates than children without. High absence at the school level were more prevalent among three of the 12 SEN groups (χ^2=99.509, df =24, p<.001), that is, high risk SEBD, dyslexia with SEBD, and other SEN.

Table 4.25. Distribution of pupils across school absence rate categories over the past school year, by SEN group

SEN group	0-10 days	11-20 days	More than 20 days
No SEN	69.7%	20.9%	9.4%
Any SEN	63.3%	21.6%	15.1%
Of those with any SEN…			
Medium risk SEBD only	61.8%	21.7%	16.5%
High risk SEBD only	55.2%	26.8%	18.1%
GLD (including some cases with another SEN)	67.8%	17.1%	15.2%
GLD with medium or high risk SEBD	72.8%	19.6%	7.6%
Dyslexia (including some cases with another SEN)	63.1%	25.0%	11.9%
Dyslexia with medium or high risk SEBD	70.5%	12.5%	17.0%
Speech and language disorder (including some cases with another SEN)	69.1%	24.7%	6.2%
Speech and language disorder with medium or high risk SEBD	72.4%	18.4%	9.2%
Autistic spectrum disorder or Asperger's syndrome	67.2%	16.4%	16.4%
Physical or sensory disability only	63.9%	26.2%	9.8%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	68.4%	15.4%	16.2%
Other SEN	57.6%	24.4%	18.0%
All children	68.0%	21.1%	11.0%

4.10 Characteristics of pupils in children's classrooms

This section opens by examining the characteristics of other pupils in the children's classes. It then considers three teacher-reported measures of class and school climate: pupil behaviour, involvement of parents and teacher climate.

Teachers were asked to indicate the percentages of children in the study child's class with limited knowledge of the language of instruction, with an emotional or behavioural difficulty, a learning disability and a physical disability (Table 4.26). These categories are not mutually exclusive and, as noted earlier, should not be used to make comparisons with principals' responses. On average, children were in classes that contained 4.2 per cent of pupils with limited knowledge of the language of instruction, 5.4 per cent with an emotional or behavioural difficulty, 9.8 per cent with a learning disability, and very few – 1.6 per cent – with a physical disability. All of these percentages are higher for children with special educational needs compared with those without special educational needs (first two rows in the table).

Table 4.26. Average percentages of pupils in children’s classrooms with a limited knowledge of the instruction language, emotional or behavioural difficulty, learning disability, and physical disability, by SEN group (teacher reports)

SEN group	% with limited knowledge of instruction language	% with an emotional or behavioural difficulty	% with a learning disability	% with a physical disability
No SEN	3.7%	4.6%	8.6%	1.2%
Any SEN	5.5%	7.2%	13.1%	2.5%
Of those with any SEN…				
Medium risk SEBD only	4.5%	5.9%	9.8%	1.5%
High risk SEBD only	5.1%	8.5%	10.4%	1.7%
GLD (including some cases with another SEN)	5.1%	5.0%	15.6%	1.2%
GLD with medium or high risk SEBD	4.6%	8.4%	17.0%	1.9%
Dyslexia (including some cases with another SEN)	4.7%	4.4%	12.5%	1.4%
Dyslexia with medium or high risk SEBD	6.8%	11.0%	15.5%	1.6%
Speech and language disorder (including some cases with another SEN)	3.1%	4.9%	12.0%	1.7%
Speech and language disorder with medium or high risk SEBD	4.6%	5.7%	11.2%	1.0%
Autistic spectrum disorder or Asperger’s syndrome	15.4%	17.6%	25.8%	12.3%
Physical or sensory disability only	3.6%	5.8%	10.2%	2.9%
Physical or sensory disability with medium or high risk SEBD and / or other SEN	11.6%	10.6%	21.3%	10.7%
Other SEN	5.4%	7.9%	13.7%	2.0%
All children	4.2%	5.4%	9.8%	1.6%

Statistically significant differences (SEN groups compared to the no-SEN group) are in bold.

Depending on their special educational needs, children are in classes with different concentrations of peers with these four characteristics. For example, almost three to four times as many pupils were in the classes of children with ASD and with a physical or sensory disability with SEBD and other SEN with a limited knowledge of the language of instruction. SEBD was more prevalent in the classes of children with medium and high risk SEBD, with dyslexia with SEBD, with ASD, with a physical or sensory disability with SEBD and other SEN, and other SEN. Prevalence of learning disabilities and physical disabilities also varied. The data in Table 4.26 indicate that children with ASD, and with a physical or sensory disability with SEBD and other SEN were more likely to be in classes with higher concentrations of students with these four characteristics. These results should be interpreted on the understanding that some were in special schools. In particular, it will be recalled that sizeable minorities of children with ASD, physical or sensory disability with SEBD and / or other SEN, and with SLD and SEBD, were in special schools.

Table 4.27 compares the SEN groups on two broad measures of classroom climate: pupil behaviour in class and parent involvement in the class[39]. Both measures have been standardised to have a mean of 10 and standard deviationof 2. Higher scores are positive, that is, indicative of better pupil behaviour or more parental involvement.

Table 4.27. Scores on pupil behaviour and parental involvement (both teacher-reported), by SEN group

SEN group	Pupil behaviour	Parental involvement
No SEN	10.05	10.14
Any SEN	9.86	9.64
Of those with any SEN…		
Medium risk SEBD only	9.86	9.73
High risk SEBD only	9.56	8.75
GLD (including some cases with another SEN)	9.81	10.04
GLD with medium or high risk SEBD	9.66	8.80
Dyslexia (including some cases with another SEN)	10.35	10.29
Dyslexia with medium or high risk SEBD	10.05	9.36
Speech and Language disorder (including some cases with another SEN)	9.95	10.41
Speech and language disorder with medium or high risk SEBD	9.52	9.94
Autistic spectrum disorder or Asperger's syndrome	9.91	9.52
Physical or sensory disability only	10.15	10.04
Physical or sensory disability with medium or high risk SEBD and / or other SEN	9.93	9.88
Other SEN	10.03	9.84
All children	10.00	10.00

Statistically significant differences (SEN groups compared to the no-SEN group) are in bold.

Mean scores on both scales are slightly lower among children with special educational needs (first two rows of the table). Pupil behaviour was rated significantly lower in classes just one of the SEN groups: high risk SEBD. Parental involvement was significantly lower among four of the groups: medium risk SEBD, high risk SEBD, GLD with SEBD, and dyslexia with SEBD.

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[39] The pupil behaviour measure was based on teacher responses to four items, with responses on a four-point scale ranging from 'only a few' to 'nearly all': pupils are well-behaved in class, show respect for their teachers, are rewarding to work with, and are well behaved in the playground or school yard. The parental involvement measure was based on teacher responses to three items, with responses on a four-point scale ranging from 'only a few' to 'nearly all': the proportion of parents attending parent-teacher meetings, attending other meetings organised by the school, and approaching the teacher informally.

4.11 Summary of findings relating to children's school, class and community characteristics

The second part of this chapter provided a broad overview of the kinds of classes, schools and communities of children in the GUI study, and compared SEN groups on these broad characteristics. Some findings indicate clustering of children with certain characteristics into specific schools, classes and communities. The sample design used in GUI should be borne in mind when interpreting results (that is, firm conclusions about school and class characteristics as they relate to SEN are not warranted). The following findings are of note.

4.11.1 Receiving additional support

We found wide variations across SEN groups in the extent to which they received additional support at the time of the Wave I survey. Most supports were in the form of learning support or resource teaching (12 per cent of all children), followed by psychological assessment (3 per cent), speech and language therapy, behaviour management, and other support(s) (all less than 1 per cent). Children with GLD with or without SEBD were most likely to have support. Also, levels of children with SEBD in the absence of another SEN were very low. While we cannot comment on the adequacy or appropriateness of these supports for the various SEN groups, the results do suggest that additional supports are much more likely for children following the identification of a more 'established' SEN (such as GLD or dyslexia) compared with children with a less established and more difficult to diagnose (or undiagnosed) SEN (such as SEBD). A new model of resource allocation proposed by the NCSE (2014) is noted with respect to these findings.

4.11.2 School and community characteristics

For school and community characteristics, to some extent, the pattern of individual background characteristics (described in the first section of this chapter) is mirrored at school or classroom level. It was found first, that there are high percentages of children with medium and high risk SEBDs, and physical or sensory disability with medium or high risk SEBD and / or other SEN, in DEIS Band 1 schools, relative to the overall average. Second, children with ASD and with medium or high risk SEBD and / or other SEN were clustered more in cities and large towns, while children with SLD (with and without SEBD) and dyslexia with SEBD were more clustered in small rural communities. Third, fewer children in some of the SEN groups than on average (with GLD, dyslexia with SEBD, and SLD) lived in well-resourced communities. Fourth, community safety was somewhat lower than the average among some SEN groups, including GLD with SEBD, SLD, physical or sensory disability with medium or high risk SEBD and / or other SEN, dyslexia with SEBD, high risk SEBD, and other SEN. Fifth, it was noted that school and community characteristics overlap.

4.11.3 Prevalence of literacy and numeracy problems in children's schools

The characteristics of pupils in the GUI children's schools varied across SEN groups. Literacy and numeracy problems were particularly prevalent in the schools attended by children with ASD, with physical or sensory disability with SEBD and other SEN, and with other SEN. They were also quite prevalent in schools attended by children with medium and high risk SEBD. The prevalence of SEBD was higher in schools attended by children with ASD, with medium and high risk SEBD groups, and with a physical or sensory disability with SEBD and / or other SEN. High absence were more common in schools attended by children with medium and high risk SEBD, dyslexia with SEBD, ASD, physical or sensory disability with SEBD and other SEN, and other SEN. In contrast, there were no substantive differences in the admission policies of schools attended by children in the various SEN groups.

Within schools, and depending on their special educational needs, children were found to be in classes with different concentrations of pupils with limited knowledge of the language instruction, physical disabilities, learning disabilities and SEBD. Specifically, children with SEBD, ASD, and with a physical or sensory disability with SEBD and other SEN were more likely to be in classes with higher concentrations of students with these four characteristics.

4.11.4 Conclusion to second part of Chapter 4

Clearly, the set of processes through which children come to live in particular communities and attend particular classrooms in specific schools is complex. However, it can be said that children in many of the SEN groups are located in community, school and classroom settings likely to pose difficulties and challenges over and above their individual needs. The results presented here suggest that some children with ASD and with physical or sensory disabilities with SEBD and other SEN, and with SEBD both on its own and with SLD or dyslexia, may be in particularly challenging circumstances.

Chapter 5 draws together the results presented in this chapter and the previous one to provide a more nuanced understanding of children's outcomes in context.

5. Children's Outcomes in Context

5.1 Introduction

This chapter describes the results of regression analyses[40] which draw together the findings from the previous two chapters. The main objective is to examine differences among the SEN groups on a selection of nine key outcomes already considered in Chapter 3, before and after accounting for a range of individual, home, class and school characteristics.

For readers less familiar with regression techniques, the aim here is to examine whether differences between SEN groups on each outcome are related to the background characteristics of the children, or whether or not these differences remain after accounting for background differences.

For example, the low scores of children with high risk SEBD on the Piers-Harris happiness and well-being scale (shown in Table 3.15 in Chapter 3) could be accounted for by the higher levels of financial stress, low levels of basic care, and high levels of adverse life events experienced by this group of children (Chapter 4). If some differences between SEN groups are due to differences in their background characteristics, this may provide indications for policy interventions that could be targeted at specific sub-groups of the population. For example, the results in this chapter show that reading scores of children with high risk SEBD do not differ significantly from those of children without special educational needs once account is taken of their demographic, socioeconomic and home background characteristics, suggesting that non-educational supports for these children may be of benefit (see Table 5.1). If, on the other hand, differences remain after accounting for children's backgrounds, then we are left with what may be considered a 'pure' difference, which may be amenable to more general or global policy interventions in the area of SEN. For example, Table 5.3 shows that parental expectations for their children's education remain low for pretty much all SEN groups, even after accounting for a range of background characteristics. This indicates that this issue is potentially suited to a global policy intervention to increase parental educational expectations for all children with special educational needs.

The nine outcomes selected for a more detailed treatment in this section were chosen for their importance within the Douglas *et al* (2012) framework and their relevance to overall quality of life, as well as for the amount of variation in those outcomes observed earlier. These are:

1. Reading achievement.
2. Mathematics achievement.
3. Parental educational expectations.
4. Liking of school and school subjects.
5. Number of days absent over the past school year.
6. Experiencing bullying.
7. Piers-Harris freedom from anxiety scale scores.
8. Piers-Harris happiness and well-being scale scores.
9. Level of participation in daily self-care activities.

We examine differences in each of these outcomes between SEN groups on their own at first, then add background variables, gradually building a comprehensive regression model that includes a range of individual, home, class and school characteristics. Nine models are examined for each outcome, as listed below.

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[40] Multilevel modelling was not used since the sample was not designed to provide representative school- or classroom-level results, and also because children are differentially clustered across schools and in small numbers in some cases. See Chapter 2.

- Model 1: SEN groups only.
- Model 2: SEN groups plus demographics (child's gender, language spoken at home, and one-parent family status).
- Model 3: SEN groups plus socioeconomic status (SES) (parental occupation, parental education, percentage of household income from social welfare, and subjective financial stress).
- Model 4: SEN groups plus home environment (children's books in the home, TV in child's bedroom, primary caregiver depression, adverse life events for child, and basic care indicator).
- Model 5: SEN groups plus demographics, SES and home environment.
- Model 6: SEN groups plus classroom environment (percentage of pupils in the class with EAL, SEBD, learning and physical disabilities).
- Model 7: SEN groups plus school / community environment (percentage of children in school with literacy and / or numeracy problems, percentage of children in the school absent for more than 20 days, DEIS status, and perceived safety of local community).
- Model 8: SEN groups plus classroom environment and school / community environment.
- Model 9: Full model – SEN groups plus demographics, SES, home, classroom and school/community environments.

Our focus is on comparing the first model (SEN groups only) with the fifth model (SEN groups with individual background characteristics adjusted for) and the ninth model (SEN groups with individual and school, class and community background characteristics adjusted for).

5.2 Interpreting the results: Guidelines and examples

This section provides information on how we have presented results, and how to interpret them. We have also taken two examples from the results to illustrate how the models can be interpreted.

We have used shading and bold text to denote varying levels of statistical significance in the tables as follows:

- Numbers in **bold** and shaded in grey : p-value is .001 or less (very highly statistically significant).
- Numbers in **bold**: p-value is less than .01 but greater than .001 (highly statistically significant).
- Numbers in *italics* with borders on the cells: p-value is less than .05 but greater than .01 (moderately statistically significant).

There are two kinds of results, depending on how the outcome is measured. For continuous outcomes, such as reading and mathematics achievement, the numbers in the tables are the score differences between each SEN group relative to the no-SEN group.

How big is a difference? It is important to bear in mind that for large sample sizes such as the GUI dataset, which includes 8,568 cases, it is frequently possible to obtain a statistically significant result, even when the results suggest the differences between groups are not that large in real or substantive terms.

Interpreting the results in terms of the size of the differences in the outcomes of the SEN groups depends on whether the outcome is measured on a continuous scale (such as reading scores), or a categorical scale (such as bullied-not bullied).

For *continuous* variables, as a guideline, for a standard deviation of 15, which applies to the mathematics and reading test scores, we suggest that differences of 0-2 points are 'negligible to small', 3-5 points 'small to medium' 6-10 points 'medium to large', 11-15 points 'large' and 16 or more points indicate a 'very large' difference. For a standard deviation of 10, which applies to the Piers-Harris scales, we suggest that differences of 0-1 points are 'negligible to small', 2-3 points 'small to medium' 4-7 points 'medium to large', 8-10 points 'large' and 11 or more points indicate a 'very large' difference[41].

For *non-continuous* outcomes, such as experiencing bullying (measured as yes or no), the numbers in the tables are the odds ratios of each SEN group having that characteristic compared to the no-SEN group. For example, in a model of bullying, if the GLD[42] group had an odds ratio of 2.0, this means that that group is twice as likely (has double the odds) of being bullied compared with the no-SEN group. As a guideline, we suggest that odds ratios around 0.2 (one fifth as likely) and 4.3 (just over four times more likely) indicate a 'large' difference, that odds ratios around 0.4 and 2.5 indicate a 'medium' difference, and that odds ratios around 0.7 and 1.4 indicate a 'small' difference[43].

The R^2 statistics at the bottom of the tables indicate the explanatory power of the models. Values of R^2 can range from 0 to 1, with higher values indicating that more of the variation in the outcome (e.g. differences between children on mathematics achievement) is accounted for. Comparing R^2 values across the models shown in each table can be useful. For example, we might be interested in examining the additional variation explained by children's individual background characteristics (Model 5) relative to their SEN groupings (Model 1). In this case we would look for the difference in the R^2 between these two models. For non-continuous outcomes, the R^2 is referred to as the Nagelkerke R^2. It should be interpreted more cautiously than the R^2 for continuous outcomes (it only has meaning when compared to another pseudo R^2 of the same type, on the same data, predicting the same outcome; Long, 1997), and its main use in the results presented here is to compare across models examining the same outcome. We have shaded the R^2 values for Models 5 and 9 in the tables to indicate whether or not the addition of individual-level variables (Model 5) and school or classroom-level variables (Model 9) significantly improve explanatory power. In looking at the R^2 values in this chapter, it is important to note that, typically with regression analyses of this kind, most variation remains unexplained.

5.2.1 Example 1: A continuous outcome – Mathematics achievement

Below is an extract from Table 5.2. The numbers in the table show the difference in mathematics achievement for three of the SEN groups: high risk SEBD, dyslexia, and physical or sensory disabilities, for Models 1, 5 and 9.

Model 1 shows the differences in mathematics achievement scores between children with no special educational needs (the 'reference group') and the three SEN groups. Model 5 shows these differences, after taking account of differences in children's demographic, socioeconomic and home environment characteristics. Model 9 shows these differences, again after accounting for differences in children's demographic, socioeconomic and home environment characteristics, as well as differences in their school, class and community environments. Recall that across all children, mathematics scores have a mean of 100 and a standard deviation of 15.

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[41] This interpretation is similar to that based on Cohen's *d* to describe effect sizes, which equals the difference between means divided by the pooled standard deviation, where an effect size of 0.2 is described as small, 0.5 as medium, and 0.8 as large (see Cohen, 1988).

[42] Recall that our classification of children with GLD covers children with mild, moderate and severe general learning disabilities and difficulties.

[43] These guidelines are from Chinn (2000) and are relatively widely cited; however, the context in which they are applied is medical rather than educational, and so the criteria may be more conservative in a medical context relative to an educational one.

The R^2 value for Model 1 indicates that variation among all 12 SEN groups (only three of which are shown here) accounts for 12.9 per cent of the variation in mathematics scores, while R^2 for Model 5 indicates that individual background characteristics account for an additional 6.2 per cent of variation in achievement relative to Model 1 (.191 – .129, converted to a percentage). The R^2 values for Models 5 and 9 are almost identical, which means the addition of class, school and community characteristics explains no additional variation in the achievement between SEN groups.

Example 1 Changes in mathematics achievement scores for a subset of SEN groups

Extract from models of mathematics achievement	Model 1	Model 5	Model 9
Children with no SEN compared to children with:	SEN groups only	Models 2-4 considered together	Models 5 + 8 considered together
High risk SEBD	**-5.990**	**-3.196**	**-3.216**
Dyslexia	**-10.332**	**-9.681**	**-9.363**
Physical or sensory disability	-1.735	-1.319	-1.768
R^2	.129	**.191**	.190

Taking the results for the high risk SEBD group first, it can be seen that, in Model 1, that is, without taking children's backgrounds into account, there is a medium-sized difference of 5.99 points between this group and children with no special educational needs. The minus sign indicates that these children score 5.99 points lower than children without special educational needs.

Model 5 shows a difference of about 3.20 points which may be interpreted as small / medium. Comparing Models 1 and 5, it can be inferred that children's individual backgrounds account for about 2.8 points of the difference between children with high risk SEBD and children with no special educational needs. In other words, about half of the achievement difference between the high risk SEBD group and no-SEN group is due to differences in children's demographic, socioeconomic and home environment characteristics. We saw, from results in Chapter 4, that children with high-risk SEBD have, on average, a more disadvantaged social, economic, and home environment profile.

Looking at Model 9, we can see almost no change in the achievement score difference associated with Model 5. That is, accounting for school, class and community characteristics makes no difference to the estimated scores of this group. This is consistent with R^2 values for Models 5 and 9 being about the same.

Looking next at the dyslexia group (Example 1 above), a large difference of 9-10 points can be seen on the mathematics test between this group and the no-SEN group, and that the score point difference changes little across the three models. This indicates that the achievement differences between children with dyslexia and children without a special educational need are unrelated to their individual and school, class and community backgrounds.

Turning to the physical or sensory disability group (Example 1), there is a small difference of 1-2 points relative to the no-SEN group in Models 1, 5 and 9, and these differences are not statistically significant in any of the three models. In other words, children with a physical or sensory disability are doing about as well as peers without a special educational need on the mathematics test, regardless of their individual, school, class or community characteristics.

5.2.2 Example 2: A categorical outcome – parental educational expectations

Below is an extract from Table 5.3. The numbers in the table represent the odds of three groups of children (relative to the no-SEN group) of having parents who expect them to study for a third-level degree (as opposed to completing second-level school, an apprenticeship, or a third level certificate or diploma), for Models 1, 5 and 9.

Example 2 Changes in parental educational expectations for a subset of SEN groups

Extract from model of parental educational expectations	Model 1	Model 5	Model 9
Children with no SEN compared to children with:	SEN groups only	Models 2-4 considered together	Models 5 + 8 considered together
High risk SEBD	**0.546**	**0.627**	**0.694**
Autistic spectrum disorder or Asperger's syndrome	**0.250**	**0.308**	**0.192**
Physical or sensory disability	2.172	**2.508**	**3.696**
Nagelkerke (pseudo) R^2	.101	**.239**	**.265**

Similar to the first example above, Model 1 (Example 2) shows the odds ratios for SEN groups without accounting for any background characteristics. Model 5 shows these odds, after taking account of differences in children's demographic, socioeconomic and home environment characteristics. Model 9 shows these odds, again after accounting for differences in children's demographic, socioeconomic and home environment characteristics, as well as differences in their school, class and community environments. If a group is less likely to be expected to study for a degree compared to the no-SEN group, the odds are less than 1; if they are more likely, the odds are greater than 1. A comparison of the Nagelkerke R^2 statistics for Models 5 and 9 indicates that school / class / community characteristics explain a little of the additional variation in parental expectations, if not much (.265 vs .239).

Taking the high risk SEBD group first (Example 2), Model 1 shows these children are only just over half as likely as children without a special educational need to have parents who expect them to study for a degree (odds ratio or OR = 0.55). After accounting for individual background characteristics, the odds increase from 0.55 to 0.63, implying that if children with high risk SEBD had similar individual background characteristics as children without special educational needs, the odds of them being expected to study for a degree increase somewhat. However, they are still significantly less likely to have parents with this expectation than children without a SEN ($p < .001$, as indicated by the shading). Considering individual and school, class and community characteristics together (Model 9), the odds of these children having parents with expectations of a third level degree increase slightly (from 0.63 to 0.69). This implies that the school and class environments of these children are related to some of the lowered educational expectations of their parents, and the odds are still significantly lower ($p < .01$, as indicated by the bold font).

Children with an ASD (Example 2) are about a quarter as likely as children without a special educational need to have parents who expect them to study for a degree (OR = .25). And similar to children with high risk SEBD, the odds increase slightly in Model 5 (OR = 0.31), that is, after taking account of individual background characteristics. However, these children are still only about a third as likely to have parents who expect them to study for a degree compared to the no-SEN group. Interestingly, adding school, class and community characteristics to the model (Model 9) results in a reduction in the odds ratio for the ASD group (from 0.31 to 0.19) which suggests there is something about the school, class or community environments of these children that is depressing parental educational expectations[44].

Children with a physical or sensory disability (Example 2) are just over twice as likely to have parents with degree-level educational expectations for their children (OR = 2.17). The odds increase both in Model 5 (OR = 2.51) and Model 9 (OR = 3.70). In other words, individual and school / class / community characteristics work together to increase the likelihood of high parental educational expectations of this group.

5.3 Reading achievement

Table 5.1 shows the regression results for the models of reading achievement, and Figure 5.1 compares the differences in reading achievement between the SEN groups before and after adjusting for individual background characteristics (Model 5), and all variables in the final model (Model 9). As noted in Section 3.2 in Chapter 3, reading scores vary quite widely across SEN groups, and SEN status on its own accounts for about 17 per cent of the variation in reading scores ($R^2 = .167$)[45]. Of the component characteristics of children's individual backgrounds (Models 2, 3 and 4), socioeconomic background (measured by parental occupation, parental education, percentage of household income from social welfare, and subjective financial stress) explains the largest portion of additional variation ($R^2 = .234$, that is, about 6.7 per cent of additional variation, comparing with $R^2 = .167$). However, socioeconomic background is not related in the same way to achievement across the SEN groups (compare Models 1 and 5 for the SEBD groups and GLD, for example). SEN groups and individual background characteristics account for 27 per cent of variation in reading achievement. In contrast, school, class and community characteristics explain negligible amounts of achievement variation over and above SEN group status (Models 7 and 8 compared with Model 1).

Model 9 confirms there is still substantial variation in children's reading scores after accounting for individual, school, class and community characteristics, and that these characteristics explain little additional variation in reading (.276 vs .268). However, children with a physical or sensory disability are doing as well as children without a special educational need in reading. Interestingly, children with medium risk SEBD are also doing as well as the no-SEN group once account is taken of their background characteristics, particularly home environment characteristics (see Model 4 for this group). Several groups have reading scores that are ten or more points lower than the no-SEN group in Model 9 – these are children with GLD, GLD with SEBD, dyslexia, dyslexia with SEBD, SLD with SEBD, ASD, physical or sensory disability with SEBD and / or other SEN, and other SEN. Of note is the pattern of results for children with ASD. Model 5 shows a score point difference of 4.8, while for Model 9 it is 11.6. This suggests that, over and above individual characteristics, school, class and community characteristics have a depressive effect on the reading scores of children with ASD.

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[44] We saw from Chapter 4 that about one in five children with ASD were enrolled in special schools.

[45] This means that SEN status accounts for only a small proportion of the variation in this particular outcome.

Figure 5.1. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Reading scores (mean = 100, SD = 15)

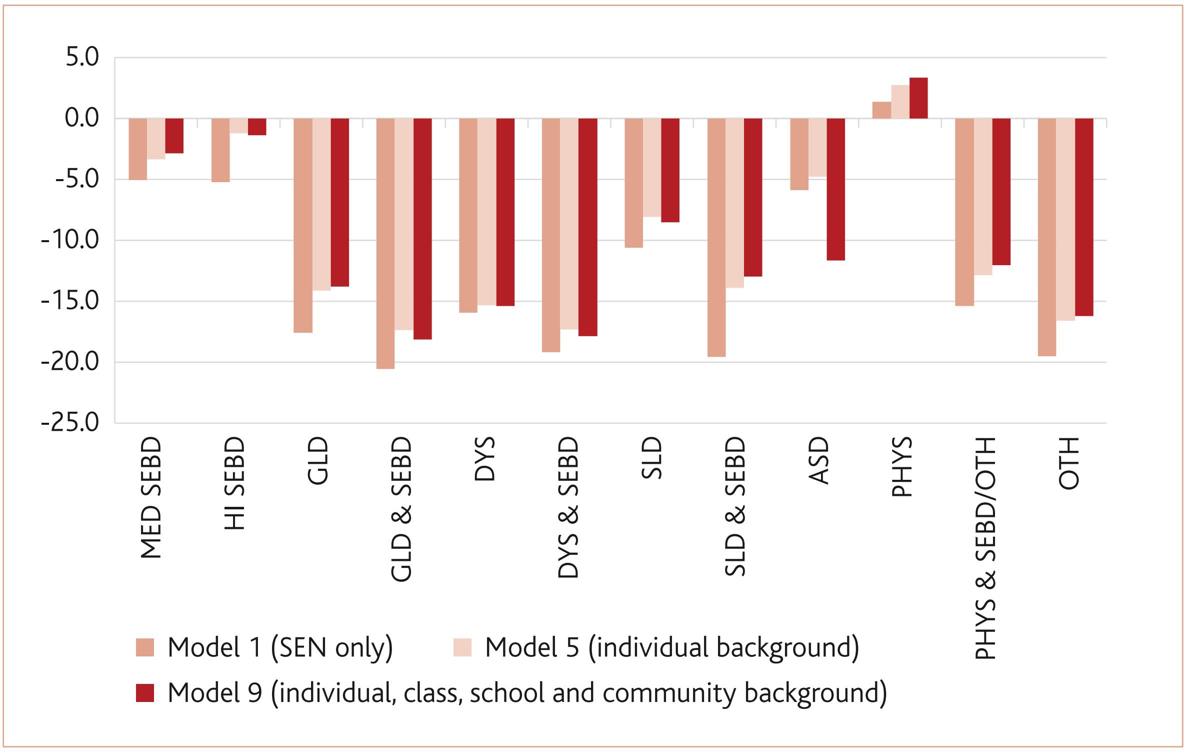

Table 5.1. Regression models of reading achievement, with differences for SEN groups only displayed

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Children with no SEN compared to children with:	SEN groups only	Model 1 + Demographics	Model 1 + SES	Model 1 + Home environment	Models 2-4 considered together	Model 1 + Classroom environment	Model 1 + Schoo/ comm-unity environment	Models 6 + 7 considered together	Models 5 + 8 considered together
Medium risk SEBD	**-5.023**	**-4.693**	**-3.965**	**-3.783**	**-3.335**	**-4.727**	**-4.273**	**-4.237**	**-2.829**
High risk SEBD	**-5.210**	**-5.170**	**-2.698**	**-1.842**	-1.206	**-5.007**	**-3.979**	**-4.312**	-1.350
GLD	**-17.578**	**-17.386**	**-14.867**	**-15.375**	**-14.104**	**-17.275**	**-17.865**	**-17.770**	**-13.764**
GLD with medium or high risk SEBD	**-20.553**	**-20.536**	**-17.843**	**-18.285**	**-17.344**	**-20.516**	**-20.650**	**-21.075**	**-18.117**
Dyslexia	**-15.940**	**-16.002**	**-15.171**	**-15.473**	**-15.330**	**-15.391**	**-16.425**	**-15.931**	**-15.363**
Dyslexia with medium or high risk SEBD	**-19.171**	**-19.362**	**-18.510**	**-16.586**	**-17.306**	**-19.296**	**-18.997**	**-19.609**	**-17.834**
Speech and language disorder	**-10.625**	**-10.623**	**-8.742**	**-9.334**	**-8.090**	**-10.712**	**-10.775**	**-10.970**	**-8.507**
Speech and language disorder with medium or high risk SEBD	**-19.563**	**-19.399**	**-17.221**	**-14.673**	**-13.907**	**-19.018**	**-19.504**	**-19.224**	**-12.964**
Autistic spectrum disorder or Asperger's syndrome	**-5.867**	**-6.099**	**-4.085**	**-5.837**	**-4.795**	**-5.726**	**-9.994**	**-10.889**	**-11.638**
Physical or sensory disability	1.385	1.097	1.982	2.176	2.744	1.487	2.394	2.392	3.358
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	**-15.364**	**-15.738**	**-13.652**	**-13.261**	**-12.868**	**-14.228**	**-14.308**	**-13.623**	**-12.026**
Other SEN	**-19.480**	**-19.478**	**-17.083**	**-17.864**	**-16.569**	**-19.129**	**-18.585**	**-18.505**	**-16.236**
R^2	**.167**	**.178**	**.234**	**.225**	**.268**	**.175**	**.192**	**.197**	**.276**

Note. Coefficients are based on a scale with a mean of 100 and SD of 15.

Model 2 Demographics: Child's gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child's bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: % of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School / community environment: % of children in school with literacy and / or numeracy problems, % of children in the school absent for >20 days, DEIS status, and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for Model 5 indicates a statistically significant improvement to model fit over Model 1; R^2 shaded in grey for Model 9 indicates a statistically significant improvement to model fit over model 5.

5.4 Mathematics achievement

Table 5.2 shows the regression results for the models of mathematics achievement and Figure 5.2 compares the differences in mathematics achievement between the SEN groups before and after adjusting for individual background characteristics (Model 5), and all variables in the final model (Model 9). Again, mathematics scores vary quite widely across SEN groups, and SEN status on its own accounts for 13 per cent of the variation in mathematics scores (a little less than reading, which is 17 per cent). As with reading, socioeconomic background explains the largest portion of additional variation in mathematics. Also similar to the models for reading, results for mathematics show that school, community and class characteristics explain negligible amounts of achievement variation over and above individual characteristics (Model 9 vs Model 5; R^2 = .19 in both cases).

Looking across the results for the different SEN categories, broadly speaking, the same pattern of results is evident. However, three groups – children with dyslexia, dyslexia with SEBD, and ASD, do comparatively worse on reading than on mathematics (comparing Model 9 for these groups in Tables 5.1 and 5.2).

Figure 5.2. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Mathematics scores (mean = 100, SD = 15)

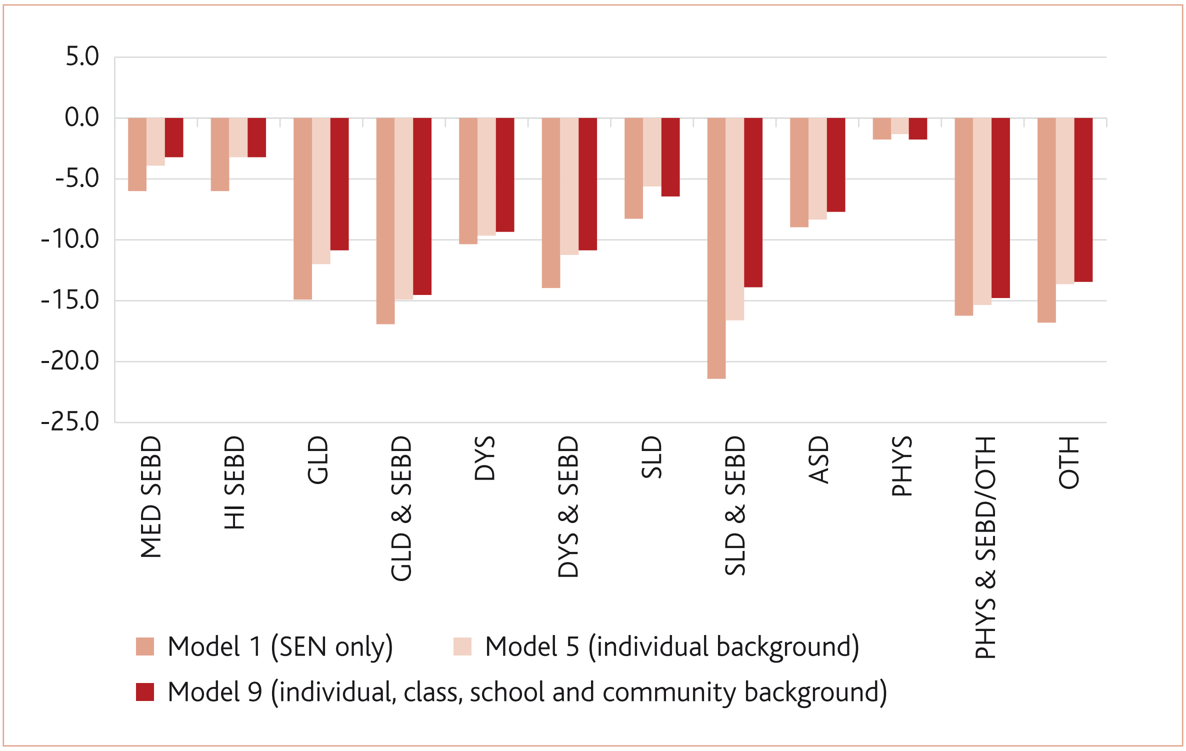

Table 5.2. Regression models of mathematics achievement, with differences for SEN groups only displayed

Children with no SEN compared to children with:	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
	SEN groups only	Model 1 + Demographics	Model 1 + SES	Model 1 + Home environment	Models 2-4 considered together	Model 1 + Classroom environment	Model 1 + School/ comm-unity environment	Models 6 + 7 considered together	Models 5 + 8 considered together
Medium risk SEBD	**-6.003**	**-5.714**	**-4.374**	**-4.625**	**-3.885**	**-5.483**	**-5.001**	**-4.749**	**-3.178**
High risk SEBD	**-5.990**	**-6.003**	**-3.921**	**-3.356**	**-3.196**	**-5.641**	**-4.524**	**-4.678**	**-3.216**
GLD	**-14.921**	**-14.655**	**-12.567**	**-13.080**	**-11.999**	**-13.979**	**-14.955**	**-14.185**	**-10.876**
GLD with medium or high risk SEBD	**-16.951**	**-16.881**	**-13.652**	**-16.100**	**-14.870**	**-16.364**	**-16.133**	**-15.955**	**-14.513**
Dyslexia	**-10.332**	**-10.228**	**-9.568**	**-9.860**	**-9.681**	**-9.634**	**-10.700**	**-10.132**	**-9.363**
Dyslexia with medium or high risk SEBD	**-13.965**	**-14.029**	**-12.483**	**-11.435**	**-11.238**	**-13.097**	**-13.636**	**-13.223**	**-10.832**
Speech and language disorder	**-8.285**	**-8.879**	**-6.266**	**-6.482**	**-5.621**	**-8.611**	**-8.220**	**-8.555**	**-6.441**
Speech and language disorder with medium or high risk SEBD	**-21.416**	**-21.221**	**-19.591**	**-16.861**	**-16.592**	**-20.436**	**-19.976**	**-19.173**	**-13.895**
Autistic spectrum disorder or Asperger’s syndrome	**-8.967**	**-9.838**	**-7.741**	**-7.938**	**-8.322**	-4.740	**-9.692**	-6.452	-7.723
Physical or sensory disability	-1.735	-2.165	-1.542	-1.194	-1.319	-1.888	-1.584	-1.921	-1.768
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	**-16.248**	**-16.942**	**-14.565**	**-15.310**	**-15.354**	**-15.067**	**-15.176**	**-14.436**	**-14.786**
Other SEN	**-16.812**	**-16.779**	**-14.233**	**-14.910**	**-13.650**	**-16.153**	**-15.801**	**-15.618**	**-13.415**
R^2	.129	.142	.180	.164	.191	.129	.150	.148	.190

Note. Coefficients are based on a scale with a mean of 100 and SD of 15.

Model 2 Demographics: Child’s gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child’s bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: % of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School / community environment: % of children in school with literacy and / or numeracy problems, % of children in the school absent for >20 days, DEIS status, and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for Model 5 indicates a statistically significant improvement to model fit over Model 1; R^2 shaded in grey for Model 9 indicates a statistically significant improvement to model fit over model 5

5.5 Parental educational expectations

Table 5.3 shows the logistic regression results for the models of parental educational expectations, and Figure 5.3 compares the differences in parental educational expectations between the SEN groups in Models 1, 5 and 9. Unlike reading and mathematics achievement, parental educational expectations are measured as a binary categorical variable (third level degree v other), so results are presented as odds ratios (see Example 2 in Section 5.2).

Table 5.3 shows, with the conspicuous exception of children with a physical or sensory disability, that children in all other SEN groups are substantially and significantly less likely to be expected to study for a degree (odds ratios for groups other than physical / sensory disability for Model 1 range from 0.14 to 0.56). These differences hold after accounting for children's background characteristics (odds ratios for groups other than physical / sensory disability for Model 1 range from 0.17 to 0.69). Of individual background characteristics, socioeconomic characteristics appear to be the most relevant (comparing R^2 across Models 1 to 5). For two of the groups, changes in the odds ratios are worth noting. First, children with ASD are less likely to have higher parental educational expectations once school / class / community characteristics – particularly school and community ones – are accounted for over and above individual ones (see the odds ratios for this group for Models 5, 7, 8 and 9). Second, children with a physical or sensory disability are even more likely to have high parental educational expectations when background characteristics are taken into account (comparing the odds ratios of this group for Models 1 and 9). This is a positive finding since it indicates that children's parents and schools are working together to enhance their chances of studying at degree level. Overall, however, this set of findings is of concern, particularly if parents' educational expectations were to remain reasonably stable (or even decrease) over time.

Figure 5.3. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Parental educational expectations (odds ratios third level degree v second level, apprenticeship, cert or diploma)

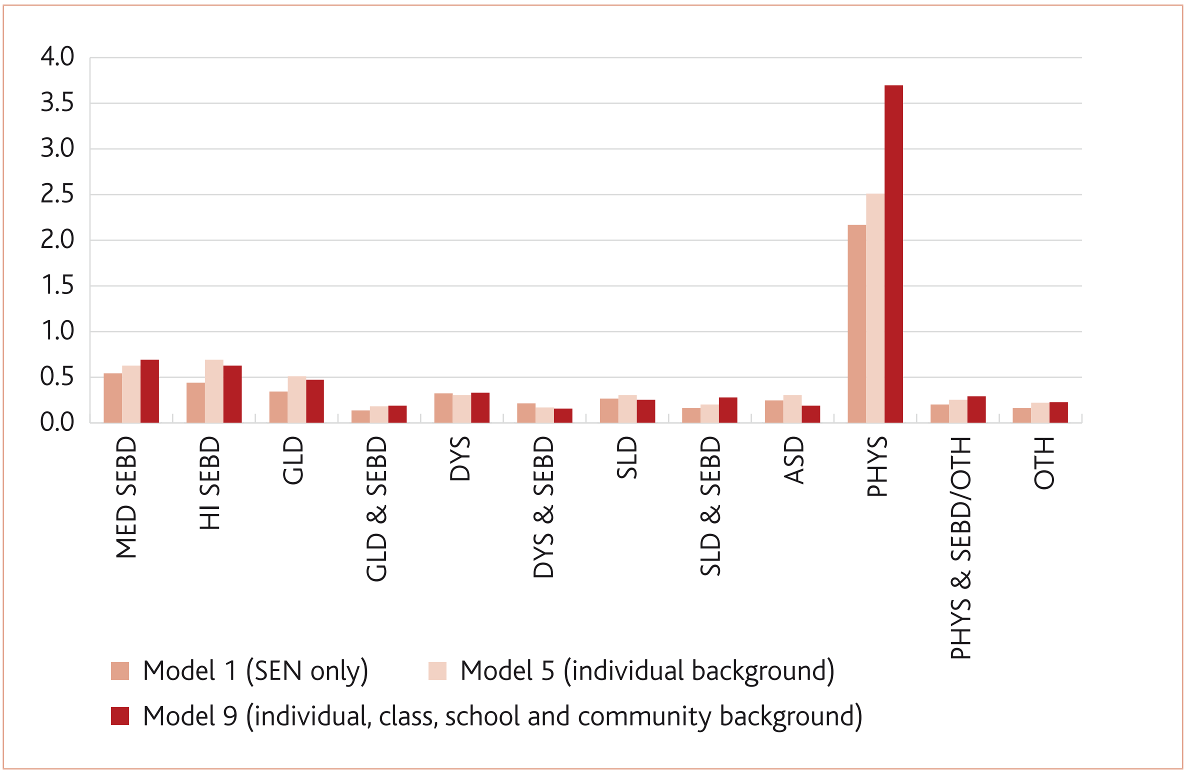

Table 5.3. Logistic regression models of parental educational expectations (degree v other), with differences for SEN groups only displayed

Children with no SEN compared to children with:	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
	SEN groups only	Model 1 + Demographics	Model 1 + SES	Model 1 + Home environment	Models 2-4 considered together	Model 1 + Classroom environment	Model 1 + School/ comm-unity environment	Models 6 + 7 considered together	Models 5 + 8 considered together
Medium risk SEBD	**0.546**	**0.562**	**0.626**	**0.652**	**0.627**	**0.587**	**0.581**	**0.611**	0.694
High risk SEBD	**0.438**	**0.504**	**0.608**	**0.548**	0.692	**0.462**	**0.476**	**0.478**	0.626
GLD	**0.345**	**0.356**	**0.497**	**0.359**	**0.514**	**0.369**	**0.340**	**0.355**	**0.475**
GLD with medium or high risk SEBD	**0.138**	**0.142**	**0.172**	**0.153**	**0.181**	**0.145**	**0.132**	**0.133**	**0.187**
Dyslexia	**0.327**	**0.349**	**0.292**	**0.323**	**0.302**	**0.362**	**0.315**	**0.347**	**0.330**
Dyslexia with medium or high risk SEBD	**0.213**	**0.229**	**0.159**	**0.259**	**0.170**	**0.224**	**0.202**	**0.203**	**0.155**
Speech and language disorder	**0.268**	**0.272**	**0.282**	**0.255**	**0.302**	**0.253**	**0.267**	**0.252**	**0.253**
Speech and language disorder with medium or high risk SEBD	**0.162**	**0.176**	**0.188**	**0.187**	**0.200**	**0.189**	**0.178**	**0.206**	**0.277**
Autistic spectrum disorder or Asperger's syndrome	**0.250**	**0.295**	**0.242**	**0.227**	**0.308**	**0.308**	**0.203**	**0.206**	**0.192**
Physical or sensory disability	2.172	2.237	2.268	2.116	2.508	2.209	3.067	3.207	3.696
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	**0.203**	**0.222**	**0.217**	**0.255**	**0.252**	**0.234**	**0.213**	**0.229**	**0.292**
Other SEN	**0.160**	**0.161**	**0.213**	**0.186**	**0.218**	**0.170**	**0.166**	**0.168**	**0.227**
Nagelkerke (pseudo) R^2	.101	.118	.219	.180	**.239**	.101	.118	.115	**.265**

Note. The data in the table are odds ratios.

Model 2 Demographics: Child's gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child's bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: % of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School / community environment: % of children in school with literacy and / or numeracy problems, % of children in the school absent for >20 days, DEIS status, and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for Model 5 indicates a statistically significant improvement to model fit over Model 1; R^2 shaded in grey for Model 9 indicates a statistically significant improvement to model fit over model 5

5.6 Liking of school and school subjects

Table 5.4 shows the regression results for the models of liking school / school subjects, and Figure 5.4 compares the differences in liking school / school subjects between the SEN groups before and after adjusting for all variables in the final model (Models 1, 5 and 9). Results are odds ratios, where the odds of children in each SEN group of having a low liking of school and school subjects (as opposed to medium or high liking) are compared with the no-SEN group.

From Model 1, wide variation is evident in how much or how little children with special educational needs express a dislike of school or school subjects relative to their no-special educational needs peers (odds ratios range from almost even, 1.08, to 3.89). Children with dyslexia, dyslexia and SEBD, GLD with SEBD, ASD, and other SEN are two to four times more likely to express a dislike than the no-SEN group. In contrast, children in five other groups (those with odds ratios for Model 1 that are not marked in bold) are about as likely to like or dislike school subjects compared to children without special educational needs.

Model 9 confirms that three groups, GLD with SEBD, other SEN, and in particular children with dyslexia (OR = 4.26) are about three or four times more likely to dislike school and school subjects after accounting for background characteristics. A further two groups – children with dyslexia and SEBD, and with a physical or sensory disability and SEBD and / or other SEN are about twice as likely to dislike school and school subjects (OR = 2.16 and 2.08, respectively).

Figure 5.4. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Liking of school and school subjects (odds ratios low liking v medium or high liking)

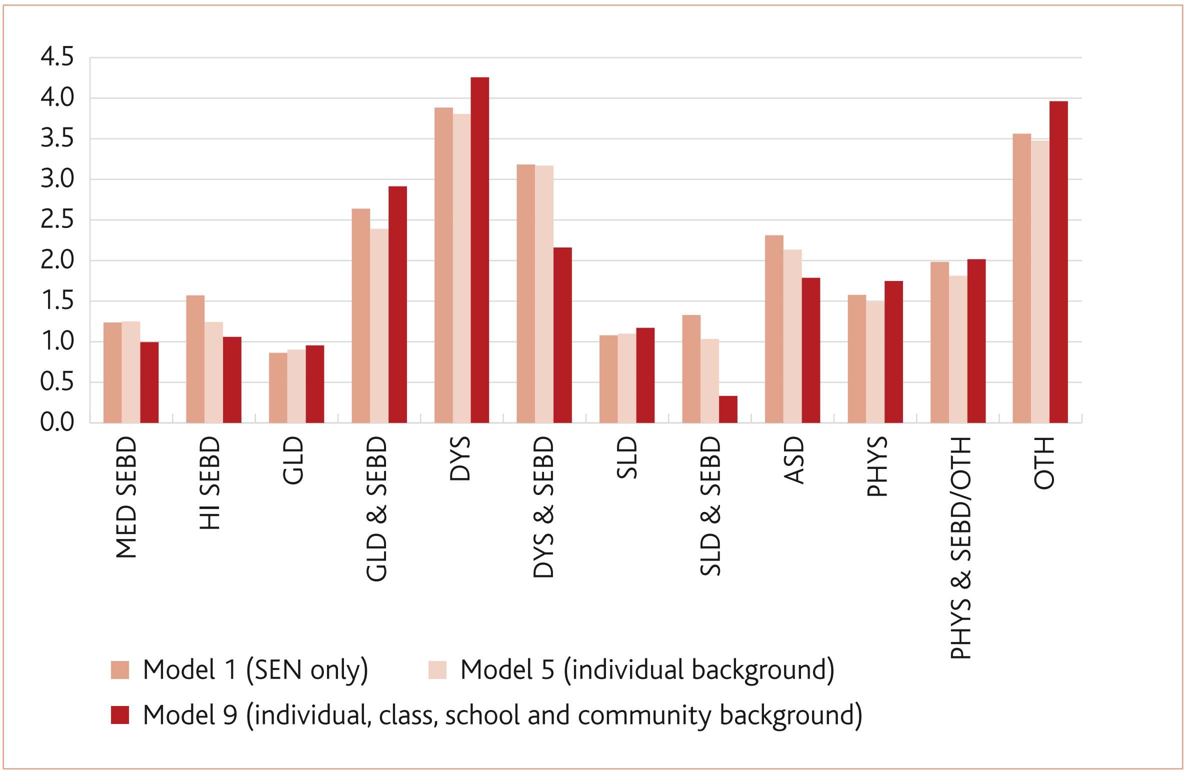

Table 5.4. Logistic regression models of liking school and school subjects (low v medium/high liking), with differences for SEN groups only displayed

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Children with no SEN compared to children with:	SEN groups only	Model 1 + Demographics	Model 1 + SES	Model 1 + Home environment	Models 2-4 considered together	Model 1 + Classroom environment	Model 1 + School/ comm-unity environment	Models 6 + 7 considered together	Models 5 + 8 considered together
Medium risk SEBD	1.238	1.187	1.276	1.149	1.254	1.168	1.168	1.106	.996
High risk SEBD	1.571	1.369	1.377	1.291	1.242	1.464	1.510	1.457	1.064
GLD	.865	.823	.943	.953	.906	.865	.841	.826	.956
GLD with medium or high risk SEBD	**2.641**	**2.538**	**2.491**	**2.905**	**2.392**	**2.595**	**3.055**	**3.017**	**2.917**
Dyslexia	**3.888**	**3.675**	**3.970**	**4.053**	**3.804**	**4.103**	**4.017**	**4.110**	**4.256**
Dyslexia with medium or high risk SEBD	**3.181**	**2.972**	**3.351**	**2.663**	**3.170**	**2.888**	**2.825**	**2.485**	2.162
Speech and language disorder	1.080	1.031	1.136	.981	1.100	1.134	1.116	1.179	1.170
Speech and language disorder with medium or high risk SEBD	1.329	1.211	1.118	1.228	1.032	1.285	.906	.844	.335
Autistic spectrum disorder or Asperger's syndrome	2.311	1.910	2.531	1.926	2.137	2.529	1.764	2.151	1.787
Physical or sensory disability	1.579	1.561	1.526	1.647	1.493	1.658	1.750	1.838	1.748
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	1.982	1.794	1.992	1.822	1.817	**2.133**	1.861	2.002	2.018
Other SEN	**3.566**	**3.496**	**3.515**	**3.648**	**3.480**	**3.657**	**3.600**	**3.783**	**3.964**
Nagelkerke (pseudo) R^2	.037	.047	.040	.051	**.049**	.045	.039	.048	**.076**

Note. The data in the table are odds ratios.

Model 2 Demographics: Child's gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child's bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: % of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School/community environment: % of children in school with literacy and / or numeracy problems, % of children in the school absent for >20 days, DEIS status and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for model 5 indicates a statistically significant improvement to model fit over Model 1; R^2 shaded in grey for Model 9 indicates a statistically significant improvement to model fit over Model 5

5.7 Number of days absent over the past school year

Table 5.5 shows the regression results for the models of number of days absent during the past school year, and Figure 5.5 compares the differences in days absent between the SEN groups for Models 1, 5 and 9. The numbers in the table represent the difference in days absent between the no-SEN group and each of the SEN groups. Generally, the SEN groups miss more days of school, but the numbers vary widely across groups (from almost zero days for children with SLD to over five days for children with dyslexia and SEBD, and with physical or sensory disability with SEBD and / or other SEN; Model 1), and are statistically significant in just six of the 12 groups. Note that SEN group explains only 2 per cent of the variation in absences ($R^2 = .022$). Comparing Model 5 with Model 1 indicates that individual background characteristics account for much of the observed differences in absence in Model 1 for some groups, namely children with medium and high risk SEBD, GLD, and GLD with SEBD. However individual background is unrelated to absences in two groups – dyslexia with SEBD and physical or sensory disability with SEBD and / or other SEN. Model 9 confirms these two groups remain with relatively high absence after adjusting for both individual and school, community and class characteristics. The final model explains a little under 10 per cent of the variation in school missed ($R^2 = .096$), indicating that the measures included in the model are only modestly related to children's attendance.

Figure 5.5. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Days absent in the past school year (values represent number of days)

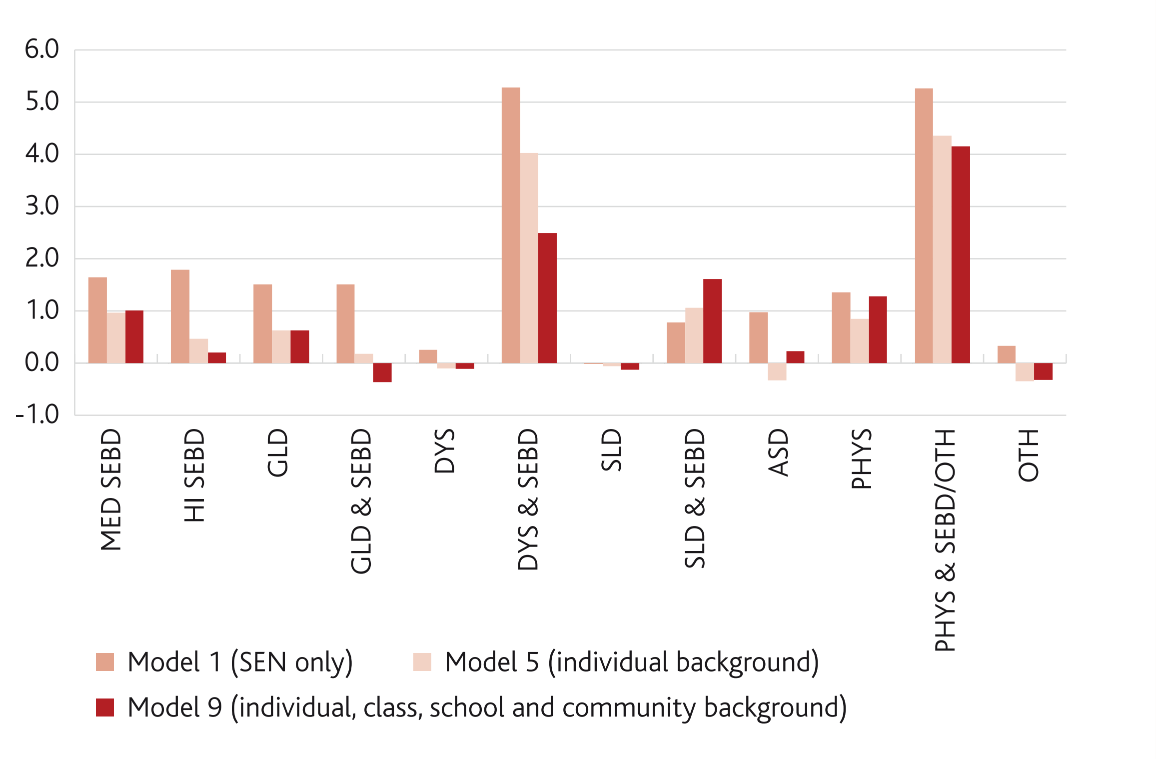

Table 5.5. Regression models of number of days absent in past school year, with differences for SEN groups only displayed

Children with no SEN compared to children with:	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
	SEN groups only	Model 1 + Demographics	Model 1 + SES	Model 1 + Home environment	Models 2-4 considered together	Model 1 + Classroom environment	Model 1 + Schoo/ comm-unity environment	Models 6 + 7 considered together	Models 5 + 8 considered together
Medium risk SEBD	**1.646**	**1.418**	**1.180**	**1.114**	.965	**1.601**	**1.438**	**1.551**	1.009
High risk SEBD	**1.788**	**1.695**	.968	.731	.467	1.285	**1.578**	1.268	.201
GLD	1.506	1.349	.639	1.317	.631	1.469	1.458	1.335	.630
GLD with medium or high risk SEBD	1.507	1.466	.529	.195	.181	1.066	1.528	1.029	-.364
Dyslexia	.255	.217	.191	-.102	-.104	.220	.468	.352	-.112
Dyslexia with medium or high risk SEBD	**5.282**	**5.288**	**4.526**	**4.157**	**4.026**	**4.208**	**4.915**	**3.700**	2.496
Speech and language disorder	-.016	.123	.013	-.052	-.059	.083	-.340	-.260	-.129
Speech and language disorder with medium or high risk SEBD	.782	.604	.602	.338	1.059	.726	1.209	1.235	1.612
Autistic spectrum disorder or Asperger's syndrome	.972	1.128	.296	-.180	-.333	1.515	.765	1.092	.227
Physical or sensory disability	1.360	1.584	1.641	.519	.848	1.561	1.022	1.147	1.278
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	**5.265**	**5.465**	**4.402**	**4.400**	**4.354**	**4.803**	**4.857**	**4.343**	**4.154**
Other SEN	.330	.316	-.053	-.292	-.350	.063	.072	-.094	-.320
R^2	.022	.038	.042	.057	**.069**	.050	.028	.054	**.096**

Note. Coefficients represent the number of days absent in the past school year.

Model 2 Demographics: Child's gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child's bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: % of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School / community environment: % of children in school with literacy and / or numeracy problems, % of children in the school absent for >20 days, DEIS status, and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for model 5 indicates a statistically significant improvement to model fit over Model 1; R^2 shaded in grey for Model 9 indicates a statistically significant improvement to model fit over Model 5

5.8 Experiencing bullying

Table 5.6 shows the regression results (odds ratios) for the models of experiencing bullying (child reports), and Figure 5.6 compares the differences in experiencing bullying between the SEN groups in Models 1, 5 and 9.

Looking at Model 1, being bullied is shown to be significantly more likely among seven of the 12 SEN groups (relative to the no-SEN group), with odds ratios at or exceeding 1.75 among children with medium and high risk SEBD, dyslexia with SEBD, ASD, and a physical or sensory disability with SEBD and / or other SEN. Looking next at the results for Model 5, there is a slight, but not substantial, reduction in the odds ratios of these groups, implying that bullying is more prevalent among these groups, largely irrespective of their individual background characteristics. These differences remain in Model 9 for children with medium and high risk SEBD, dyslexia with SEBD, and physical or sensory disabilities with SEBD and / or other SEN. They are reduced for children with ASD (and in fact are not statistically significant in Model 9), implying that school and classroom environments of these children account for some of the bullying prevalence observed in Model 1. Overall, though, results indicate a need to look elsewhere for factors associated with bullying; it is also worth recalling that the measure of being bullied used in this study is quite broad and does not distinguish between more and less severe forms.

Figure 5.6. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Experiencing bullying (odds ratios bullied v not bullied)

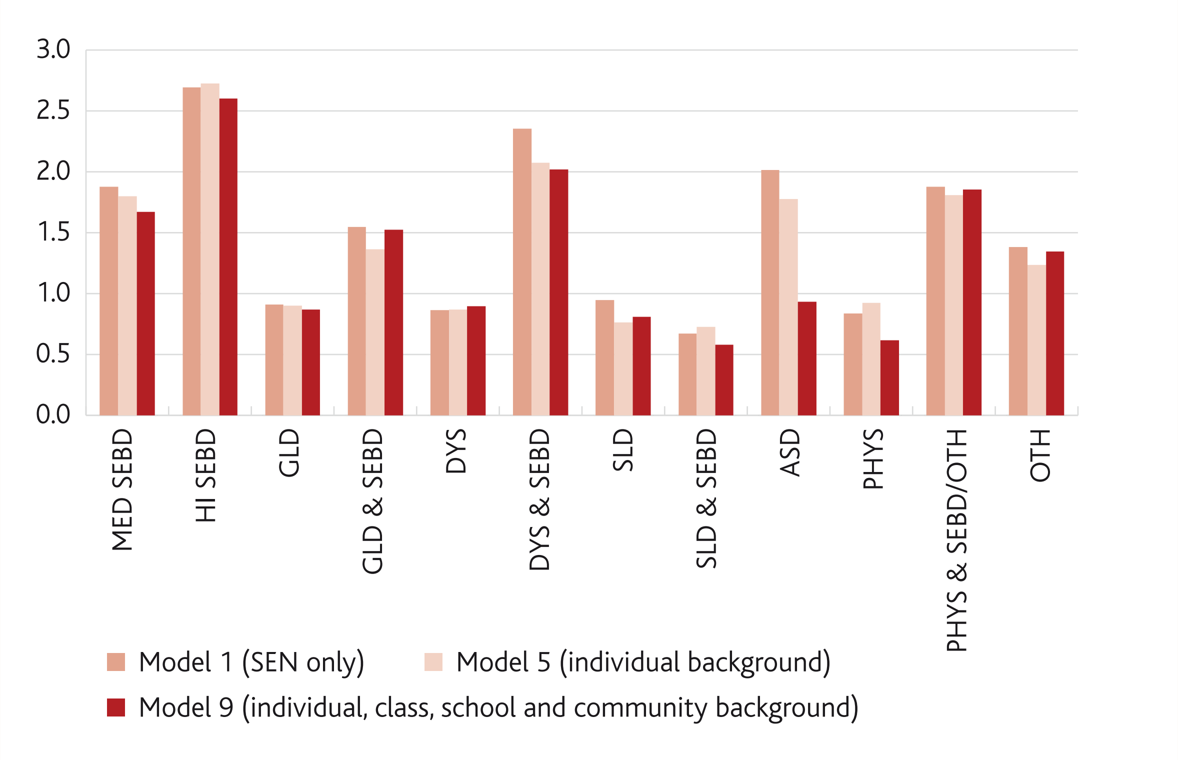

Table 5.6. Logistic regression models experiencing bullying (bullied v not bullied), with differences for SEN groups only displayed

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Children with no SEN compared to children with:	SEN groups only	Model 1 + Demographics	Model 1 + SES	Model 1 + Home environment	Models 2-4 considered together	Model 1 + Classroom environment	Model 1 + Schoo/ comm-unity environment	Models 6 + 7 considered together	Models 5 + 8 considered together
Medium risk SEBD	**1.870**	**1.831**	**1.806**	**1.658**	**1.793**	**1.861**	**1.743**	**1.756**	**1.664**
High risk SEBD	**2.687**	**2.647**	**2.702**	**2.283**	**2.718**	**2.600**	**2.621**	**2.586**	**2.592**
GLD	.906	.891	.897	.872	.900	.999	.794	.882	.868
GLD with medium or high risk SEBD	1.544	1.523	1.358	1.344	1.361	1.661	1.503	1.635	1.522
Dyslexia	.861	.852	.861	.787	.865	.975	.875	1.021	.895
Dyslexia with medium or high risk SEBD	**2.348**	**2.335**	2.039	1.855	2.067	**2.597**	**2.188**	**2.491**	2.015
Speech and language disorder	.943	.958	.757	.780	.763	.963	.881	.909	.809
Speech and language disorder with medium or high risk SEBD	.670	.659	.722	.638	.725	.696	.506	.525	.579
Autistic spectrum disorder or Asperger's syndrome	2.010	2.035	1.748	1.605	1.772	1.248	2.036	1.144	.930
Physical or sensory disability	.833	.850	.915	.629	.923	.786	.665	.606	.616
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	1.870	**1.904**	1.775	1.670	1.802	**2.142**	1.606	1.860	1.850
Other SEN	1.380	1.375	1.230	1.247	1.231	1.392	1.357	1.406	1.340
Nagelkerke (pseudo) R^2	.027	.029	.032	.033	**.033**	.031	.037	.042	**.055**

Note. The data in the table are odds ratios.

Model 2 Demographics: Child's gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child's bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: % of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School / community environment: % of children in school with literacy and / or numeracy problems, % of children in the school absent for >20 days, DEIS status, and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for Model 5 indicates a statistically significant improvement to model fit over Model 1; R^2 shaded in grey for Model 9 indicates a statistically significant improvement to model fit over Model 5

5.9 Piers-Harris freedom from anxiety scale scores

Table 5.7 shows the regression results for the models of the freedom from anxiety scale, and Figure 5.7 compares the differences in freedom from anxiety between the SEN groups before and after adjusting for all variables in the final model. The scale has an overall mean of 50 and standard deviation of 10. For nine of the 12 groups (with the exceptions of dyslexia, SLD and physical or sensory disability), scores are significantly lower than the no-SEN group, implying higher rates of anxiety (or lower freedom from anxiety). These differences exceed half of a standard deviation for four of the groups (GLD with SEBD, dyslexia with SEBD, SLD with SEBD, and other SEN). In this sense, the 'additive' effect of SEBD (e.g. dyslexia v dyslexia with SEBD) is clearly apparent.

A general pattern across these groups comparing Models 5 and 1 is for a slight reduction in the score differences relative to the no-SEN group, meaning that individual background characteristics play some role in mediating the relationship between freedom from anxiety and SEN status, but it is not substantial. Model 9 shows that differences at or exceeding half a standard deviation remain for three of the groups – GLD with SEBD, dyslexia with SEBD, and other SEN. Differences close to half a standard deviation are also apparent for two groups – high risk SEBD and SLD with SEBD. Overall, however, Model 9 accounts for only 8 per cent or so of variation in the Piers-Harris freedom from anxiety scale scores ($R^2 = .084$).

Figure 5.7. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Piers-Harris freedom from anxiety scores (mean = 50, SD = 10)

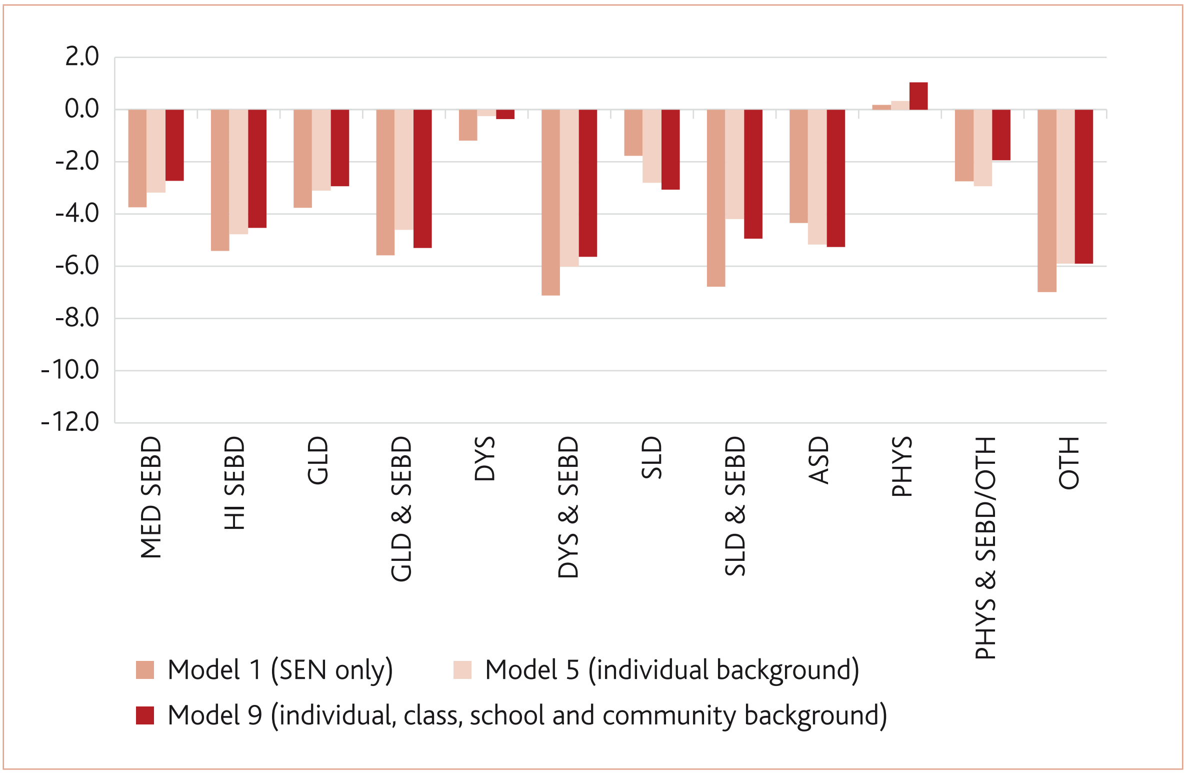

Table 5.7. Regression models of Piers-Harris freedom from anxiety scores, with differences for SEN groups only displayed

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Children with no SEN compared to children with:	SEN groups only	Model 1 + Demographics	Model 1 + SES	Model 1 + Home environment	Models 2-4 considered together	Model 1 + Classroom environment	Model 1 + School/ comm-unity environment	Models 6 + 7 considered together	Models 5 + 8 considered together
Medium risk SEBD	**-3.734**	**-3.669**	**-3.340**	**-3.431**	**-3.170**	**-3.532**	**-3.444**	**-3.294**	**-2.721**
High risk SEBD	**-5.410**	**-5.908**	**-5.395**	**-3.797**	**-4.767**	**-5.343**	**-5.185**	**-5.228**	**-4.539**
GLD	**-3.767**	**-3.842**	**-2.902**	**-3.647**	**-3.111**	**-4.034**	**-3.606**	**-3.978**	**-2.932**
GLD with medium or high risk SEBD	**-5.589**	**-5.775**	**-4.669**	**-5.057**	**-4.598**	**-6.023**	**-5.808**	**-6.432**	**-5.302**
Dyslexia	-1.183	-1.404	-.811	-.176	-.241	-1.030	-.890	-.924	-.359
Dyslexia with medium or high risk SEBD	**-7.126**	**-7.426**	**-6.526**	**-6.061**	**-6.016**	**-6.889**	**-7.045**	**-6.850**	**-5.638**
Speech and language disorder	-1.767	-2.509	-2.157	-2.313	-2.795	-1.936	-1.479	-1.684	-3.074
Speech and language disorder with medium or high risk SEBD	**-6.780**	**-6.819**	**-6.017**	-4.579	**-4.187**	-6.822	**-7.306**	**-7.533**	-4.943
Autistic spectrum disorder or Asperger's syndrome	-4.338	**-5.839**	-4.469	-3.133	-5.159	-4.885	-4.757	-5.123	-5.265
Physical or sensory disability	.174	-.295	.110	.922	.330	.588	.498	.988	1.037
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	-2.751	**-3.707**	-2.250	-2.327	-2.925	-2.014	-2.119	-1.247	-1.947
Other SEN	**-6.995**	**-7.082**	**-5.974**	-6.739	**-5.908**	**-6.809**	**-6.868**	**-6.701**	**-5.891**
R^2	.043	.076	.050	.050	**.086**	.042	.047	.047	.084

Note. Coefficients are based on a scale with a mean of 50 and SD of 10.

Model 2 Demographics: Child's gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child's bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: per cent of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School / community environment: per cent of children in school with literacy and / or numeracy problems, per cent of children in the school absent for >20 days, DEIS status, and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for Model 5 indicates a statistically significant improvement to model fit over Model 1; R^2 shaded in grey for Model nine indicates a statistically significant improvement to model fit over Model 5

5.10 Piers-Harris happiness and well-being scale scores

Table 5.8 shows the regression results for the models of happiness and well-being, and Figure 5.8 compares the differences in happiness and well-being between the SEN groups before and after adjusting for all variables in the final model. Again, the scale mean is 50 and standard deviation is 10, across all children.

Results generally follow a similar pattern to those for the freedom from anxiety scale: Model 9 shows that the same five groups (high risk SEBD, GLD with SEBD, dyslexia with SEBD, SLD with SEBD, and other SEN) have the lowest scores on this scale. Also, similar to the Model 9 for the freedom from anxiety scale, the model of happiness and well-being scores has quite weak explanatory power (R^2 = .053). In other words, children's freedom from anxiety and happiness and well-being are related to factors other than those considered in the models shown in Tables 5.8 and 5.9.

Figure 5.8. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Piers-Harris happiness and well-being scores (mean = 50, SD = 10)

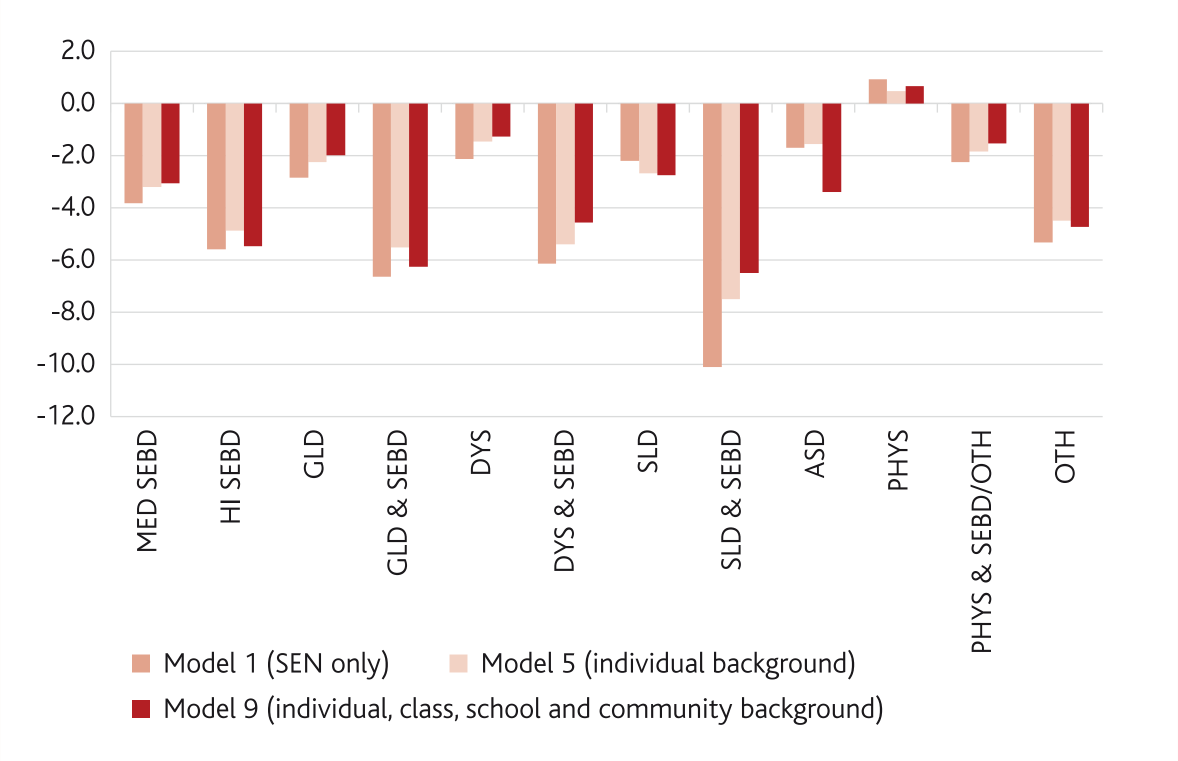

Table 5.8. Regression models of Piers-Harris happiness and well-being scale, with differences for SEN groups only displayed

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Children with no SEN compared to children with:	SEN groups only	Model 1 + Demographics	Model 1 + SES	Model 1 + Home environment	Models 2-4 considered together	Model 1 + Classroom environment	Model 1 + Schoo/ comm-unity environment	Models 6 + 7 considered together	Models 5 + 8 considered together
Medium risk SEBD	**-3.814**	**-3.516**	**-3.573**	**-3.489**	**-3.196**	**-3.665**	**-3.952**	**-3.835**	**-3.065**
High risk SEBD	**-5.595**	**-5.269**	**-5.587**	**-4.557**	**-4.865**	**-5.920**	**-5.821**	**-6.128**	**-5.464**
GLD	**-2.839**	**-2.653**	**-2.676**	-2.136	-2.256	**-3.098**	**-2.836**	**-3.175**	-1.978
GLD with medium or high risk SEBD	**-6.631**	**-6.505**	**-5.909**	**-6.844**	**-5.521**	**-7.072**	**-6.771**	**-7.319**	**-6.247**
Dyslexia	-2.127	-2.001	-2.132	-1.807	-1.448	-2.454	-1.669	-2.235	-1.272
Dyslexia with medium or high risk SEBD	**-6.137**	**-6.078**	**-5.935**	**-5.540**	**-5.402**	**-7.031**	**-4.571**	**-5.426**	**-4.568**
Speech and language disorder	-2.189	-2.091	-2.759	-2.183	-2.665	-2.338	-2.439	-2.588	-2.752
Speech and language disorder with medium or high risk SEBD	**-10.104**	**-9.814**	**-9.024**	**-8.564**	**-7.507**	**-9.538**	**-9.956**	**-9.387**	**-6.487**
Autistic spectrum disorder or Asperger’s syndrome	-1.689	-1.467	-1.868	-1.250	-1.544	-2.657	-2.741	-3.624	-3.390
Physical or sensory disability	.919	.740	.805	.738	.468	1.065	.678	.897	.659
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	-2.255	-2.265	-1.614	-1.723	-1.844	-2.523	-1.399	-1.640	-1.520
Other SEN	**-5.316**	**-5.270**	**-4.971**	**-4.759**	**-4.499**	**-5.248**	**-5.493**	**-5.356**	**-4.727**
R^2	.043	.050	.046	.047	**.049**	.044	.049	.051	**.053**

Note. Coefficients are based on a scale with a mean of 50 and SD of 10.

Model 2 Demographics: Child’s gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child’s bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: % of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School / community environment: % of children in school with literacy and / or numeracy problems, % of children in the school absent for >20 days, DEIS status, and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for model 5 indicates a statistically significant improvement to model fit over model 1; R^2 shaded in grey for model nine indicates a statistically significant improvement to model fit over model 5

5.11 Level of participation in daily self-care activities

Table 5.9 shows the regression results for the models of participation in self-care activities, and Figure 5.9 compares the differences in self-care activities between the special educational needs for Models 1, 5 and 9. As noted in Chapter 2, neither the age of the children or the measures collected in GUI lend themselves particularly well to examining children's independence, so results should be taken as an initial, broad indication of how children fare in this regard.

Across all of the models in Table 5.9, the differences among groups on this outcome are not substantial, as odds ratios tend to be close to 1 for many of the groups. The lower adjusted odds ratios for the ASD group, however, might point to difficulties later for these children's development of independent self-care.

Figure 5.9. Comparison of Model 1 (SEN group only), Model 5 (SEN group and individual background) and Model 9 (SEN group and individual, class, school and community background): Self-care tasks (none or one versus two or three)

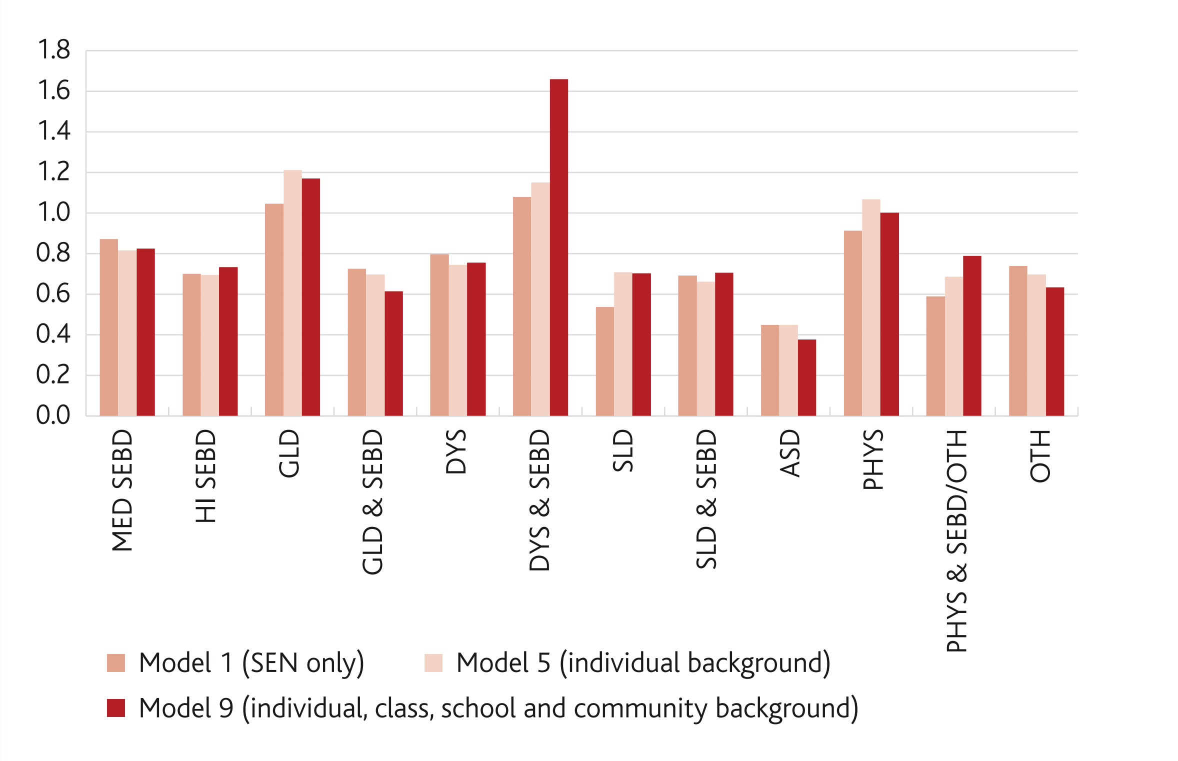

Table 5.9. Logistic regression models of participation in self-care tasks (none or one versus two or three), with differences for SEN groups only displayed

Children with no SEN compared to children with:	Model 1 SEN groups only	Model 2 Model 1 + Demographics	Model 3 Model 1 + SES	Model 4 Model 1 + Home environment	Model 5 Models 2-4 considered together	Model 6 Model 1 + Classroom environment	Model 7 Model 1 + School/ comm-unity environment	Model 8 Models 6 + 7 considered together	Model 9 Models 5 + 8 considered together
Medium risk SEBD	.872	.862	.815	.859	.816	.860	.873	.849	.826
High risk SEBD	.700	.740	**.643**	.698	.696	.711	.721	.716	.734
GLD	1.045	1.045	1.179	.926	1.211	1.010	1.190	1.140	1.170
GLD with medium or high risk SEBD	.726	.738	.668	.568	.698	.751	.722	.728	.615
Dyslexia	.798	.817	.723	.846	.746	.688	.827	.699	.755
Dyslexia with medium or high risk SEBD	1.079	1.122	1.082	1.120	1.152	1.389	1.123	1.509	1.659
Speech and language disorder	.539	.563	.675	.596	.710	.519	.566	.538	.702
Speech and language disorder with medium or high risk SEBD	.691	.708	.627	.606	.663	.674	.788	.758	.705
Autistic spectrum disorder or Asperger's syndrome	.449	.507	**.395**	.415	.449	**.282**	.539	.340	.377
Physical or sensory disability	.912	.952	1.027	.876	1.069	1.001	.806	.891	1.001
Physical or sensory disability with medium or high risk SEBD and / or other general or specific SEN	.590	.641	.623	.697	.687	.657	**.524**	.586	.788
Other SEN	.740	.749	.681	.740	.697	.762	.668	.685	.635
Nagelkerke (pseudo) R^2	.008	.014	.010	.007	.007	.008	.010	.014	**.027**

Note. The data in the table are odds ratios.

Model 2 Demographics: Child's gender, language spoken at home, and single parent status.

Model 3 SES: Parental occupation, education, % of income from social welfare, and subjective financial stress.

Model 4 Home environment: Books in the home, TV in child's bedroom, primary caregiver depression, adverse life events for child, and basic care indicator.

Model 6 Classroom environment: % of pupils in the class with EAL, SEBD, learning disability and physical disability.

Model 7 School / community environment: % of children in school with literacy and / or numeracy problems, % of children in the school absent for >20 days, DEIS status, and perceived safety of local community.

Cells in bold and grey: $p < .001$; cells in bold: $p < .01$; cells with borders: $p < .05$; cells in regular font: not statistically significant. R^2 in bold is statistically significant ($p < .001$). R^2 shaded in grey for Model 5 indicates a statistically significant improvement to model fit over Model 1; R^2 shaded in grey for Model 9 indicates a statistically significant improvement to model fit over Model 5.

5.12 Chapter summary and conclusions

Some limitations noted in Chapter 2 should be borne in mind in interpreting the results presented in this section; specifically, the small numbers of children in some of the SEN groups, the fact that sampling error is not incorporated into the analyses, and that the GUI sample was not explicitly designed to inform us in detail about the relationships between children's outcomes and school and classroom characteristics. It should be emphasised, in particular, that the regression models were not designed to provide detailed insights into the impact of teacher and classroom characteristics.

It could be argued that one of the main patterns emerging from the results presented here is that of variation and difference: there are very large variations between the SEN groups both relative to the no-SEN group and to one another in terms of the outcomes. Variations are also apparent for the same SEN groups across outcomes. A second pattern emerging is evidence of an additive impact of SEBD when it co-occurs with another SEN, such as GLD, dyslexia, or SLD. This additive impact is, generally speaking, not accounted for by differences in the background characteristics of children with and without SEBD. A third theme is the differential impact of individual background characteristics (socioeconomic measures, home environment, and demographic characteristics) on outcomes and SEN groups. For example, about half of the achievement differences in reading and mathematics observed between children with medium and high risk SEBD and children without a special educational need are accounted for by differences in individual background characteristics, which on average, show a more disadvantaged profile among children with SEBD. On the other hand, the reading scores of children with an SLD remain essentially the same after accounting for differences in background characteristics.

Some findings are worth reiterating and considering for research and policy. First, though most SEN groups have lower reading and mathematics scores even after adjusting for individual and school, community and class characteristics, a once-off measurement using a population-normed standardised test may not provide detailed policy-relevant information on children with special educational needs, other than their relative reading and mathematics standards in general at a given point in time. Much more useful would be the tailored measurement of specific skills linked to these children's needs and which can be monitored over time. A suitably tailored, progress-based measurement of learning outcomes is entirely absent from these analyses.

Second, we should be concerned about the very low parental educational expectations of parents of children in all of the SEN groups with the exception of children with a physical or sensory disability. That these large differences remain after accounting for background characteristics implies the need for a global policy response. Of course, it may be the case that educational expectations of parents change (and possibly decrease) over time, and the educational aspirations of the children themselves are unknown. Wave II data, collected when children were aged 13, could be used to monitor this outcome. Chapter 6 includes an exploration of the strengths and accomplishments in the qualitative data, and it is noteworthy that many may be considered important and non-academic.

Third, the substantially higher levels of dislike of school and school subjects found for some of the SEN groups (namely dyslexia, dyslexia with SEBD, GLD with SEBD, and other SEN) may reasonably be interpreted as an indicator of general educational disengagement. This finding suggests that any efforts to address children's disengagement from their education in the context of SEN should be targeted most specifically at these groups.

Fourth, many results point to specific needs and issues faced by particular SEN groups. For example, relatively poor outcomes for children with a physical or sensory disability combined with SEBD and / or other SEN indicate that further research is needed to better understand the nature and needs of this heterogeneous group. Children with ASD stand out as another example of a group meriting closer attention. It appears from the results presented here and in the latter half of Chapter 4 that children with ASD tend to be clustered in classroom environments with relatively high levels of special needs. While this may suit their needs in some respects, it may be less so in others (e.g. providing appropriate and sufficient opportunities for learning school subjects, learning and using self-care and independence skills).

Fifth, experiencing bullying is clearly a problem, but not for all children with special educational needs. In fact much of the differences in bullying prevalence can be linked to SEBD. Further examination of the types of bullying experienced by these groups, and the types of bullying these children may instigate, would be useful.

Finally, many children with special educational needs, particularly those where SEBD plays a role, are relatively anxious and relatively unhappy. These differences are not explained by their individual background characteristics. This finding raises questions about how their mental and emotional well-being will progress as they pass through the key life stage of puberty and adolescence.

6. Qualitative Analysis and Findings

6.1 Introduction

This chapter describes the main themes arising from an analysis of the GUI Wave I child cohort qualitative data. First, a short description of how the analyses were conducted is provided; second, the broad characteristics of the three groups of children are considered; and third, we consider three overarching themes that emerge from this analysis. At the end of the chapter, a theme summary is presented.

6.2 Methodology

A total of 158 families was initially contacted by the GUI team after taking part in the quantitative study to be included in selection for the qualitative component. Over four month, 122 children[46] from 120 of these families were interviewed alongside their parent(s) for the GUI qualitative study (a response rate of 75.9 per cent). The sample was based on the characteristics of the quantitative study, classified by socioeconomic status, family type, urban / rural location and gender. The domains covered in the child[47] and parent[48] interviews were intended to map onto the areas covered in the quantitative study. After the interviews were conducted, the data were anonymised and deposited in the Irish Qualitative Data Archive (IQDA). For further information on the technical aspects of the qualitative interviews, refer to Harris, Greene, and Merriman (2011), and Greene and Harris (2011).

The analysis of the qualitative interviews adds an important dimension to the report: the inclusion of parent and child voices. Unfortunately, the archive material for the qualitative study cannot be matched to the quantitative database, so direct triangulation is not possible. A linkage was planned in the early stages of GUI; however, a decision was taken not to proceed with a linkage protocol to ensure confidentiality and participant anonymity. Some information arising from the quantitative element has been matched to the qualitative archive (e.g. regional information, family size) by the GUI research team.

Although participants in the qualitative component of Wave I were intended to be broadly representative of the population of children (Harris, Doyle & Greene, 2011; see also Chapter 2), we cannot assume these children are representative of the population of children with special educational needs in any way; in any case, the number of children is small. The overall objective of the chapter is to provide some more detailed contextual information on the lives and experiences of these children and their parents, without assuming any generalisability.

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[46] Including two sets of nine-year-old twin siblings, both of whom were interviewed for the study.

[47] Wellness, health and physical development; child functioning; child relationships; growing up; family and parenting; community, neighbourhood and sense of citizenship.

[48] Parent perceptions of the child; parent-child relationship; perception of being a parent; family decision-making; parental concerns and aspirations for their children.

6.2.1 Identification of children with special educational needs or possible special educational needs

Children with special educational needs were not identifiable from the GUI data archive information; any specific disorders, diagnoses or conditions mentioned during the interviews were marked out by the GUI research team to protect the anonymity of the study child and their family[49], e.g. '@@developmental disorder##'. We have used basic content analysis of the parent interview and researcher field notes to identify children across three categories: children with confirmed special educational needs (Group 1); children with possible special educational needs (Group 2); and children with a sibling with special educational needs (Group 3).

Children with a confirmed special educational need (Group 1) were identified from the transcripts by references to SEN, e.g. '@@developmental disorder##', or in the case of one interview on the basis of the child attending a non-mainstream school, without specific reference to a SEN diagnosis.

Children with possible special educational needs (Group 2) may not have been identified by previous analysis of the GUI qualitative interviews as having SEN as their parents have not reported an assessment for or formal diagnosis of such needs. The children in this group can be classified into two broad and partially overlapping types: first, children with difficulties in school (Group 2A – difficulties with spelling, numeracy and / or literacy problems, slow progress and poor concentration); and second, children with SEBD-related problems (Group 2B – mainly overly emotional, quiet or worried, exhibiting internalising behaviours; some with 'disruptive' behaviours).

Children with a sibling with special educational needs (Group 3) were identified by references to a sibling with a confirmed special educational need, for example '@@psychological disorder##' or direct references to sibling(s) encountering difficulties in school during the parent interviews.

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[49] The convention used in the transcripts of child and parent interviews when changing identifying information such as names or conditions was to prefix the changed text with '@@' and put '##' at the end.

Table 6.1. Identification of confirmed or possible SEN

Data extract	Coded for
'I: And are you working? M: No just at home. When they both have @@developmental disorder## it wouldn't have been practical to work. I prefer to stay home and spend time with them.' ***106 Parent Interview***	Study child with confirmed SEN (Group 1) Sibling with SEN (Group 3)
'...Mum had described child as slow at the start in front of the child. She mentioned this again during the interview that the child had slow progress in school...' ***014 Field Note*** '...Well she'd be quiet and she'd be slow enough at her work at school, and the last time that lady was here [administering the quantitative survey], god love her I felt sorry for her 'cause she was here for hours here with @@Sarah##.' ***014 Parent Interview***	Possible SEN (Group 2A – school difficulties)
'I: Can you tell me a bit about @@Tania## and what type of child she is? R: She is pretty kind and she is a great little worker. She is very insecure because of what happened with her dad. She can be, and I am working on it at the moment, it's like everything has to be her way and be in control. I have to have boundaries for her and I am trying to set up boundaries now and she knows that when she does something wrong she gets grounded. I have to teach her. I: And how long ago was it that her dad? R: @@Several## years. I: Does she remember? R: Yeah it is only now she is missing him but she gets on well in school and with other kids.' ***087 Parent Interview*** 'Child did not mention that her father had died @@period of time## previously. Didn't mention him at all. Mum answered all the questions and was interested and open. However, she appeared stressed and anxious and had said before the interview that she was rushing off after it so I kept the question and probing to a minimum. Mum noted that the study child has been very affected by her father's death and that all of the family had been to counselling for this.' ***087 Field Note***	Possible SEN (Group 2B – SEBD-related problems)

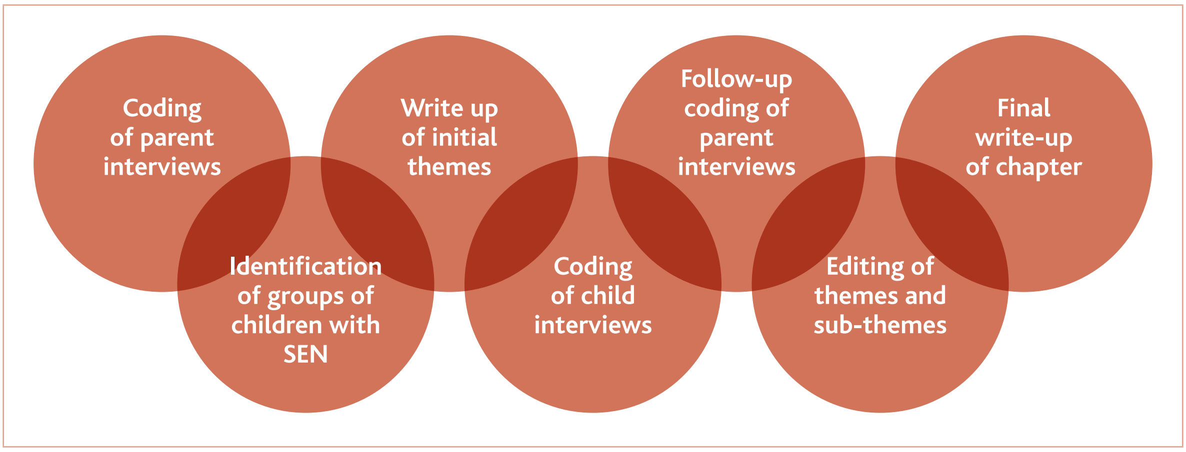
Interviewer field notes were used with the transcripts of the parent interviews to identify children in these three groups (Table 6.1). This was done as the level of detail required to identify confirmed or possible SEN was absent in the child transcripts; not all children were openly chatty or engaged in the interviews.

6.2.2 Analysis

Thematic analysis was employed to analyse the interviews. Braun and Clarke (2006) set out a six-step analytic process[50], which was broadly followed by the authors. A combination of a deductive[51] and inductive[52] approach allowed for a focused coding process. The breadth of the child and parent interviews directed the research team to focus areas directly related to the educational experiences and outcomes of children with special educational needs. Other possible themes such as activities and hobbies of children were not explored in any detail, due to the time constraints and aims of the study.

Thematic analysis is a recursive rather than a linear process (Braun and Clarke, 2006); there was a requirement to move back and forth through the various phases of the analysis. The phases of the analytic process undertaken for this study are shown in Figure 6.1. Paper-based and computer-based (NVivo qualitative data analysis software; QSR International Pty Ltd. Version 10, 2012) coding were utilised for this study.

Figure 6.1. Phases of analysis



After reading and systematic coding of parent interviews (and three groups of children identified), the child interviews were coded using existing categories arising from parent interviews and / or into new codes that arose. This stage of the analysis involved a follow-up analysis of the parent interview alongside the child interviews.

Throughout the analytic process, and in particular during the development of themes, consideration was given to the inclusion of child or parent experiences that were atypical. In looking at the atypical cases, family, educational and social factors that may make these families experiences atypical were examined. This approach helps to highlight the similarities and differences in the experiences of families with a child with special educational needs. Above all, readers should bear in mind that these results are not designed or intended to be generalisable to the population of this cohort and their families.

Initial codes were grouped together to form the three overarching themes for this chapter; some codes became sub-themes while others were combined to form a theme. Each theme was considered individually and an analysis of the extracts under that theme was undertaken. In the final write up, the analysis of extracts was refined within and across themes. The final themes were then mapped to form a visual representation of the data, which shows overarching themes, and within these, individual themes and links among them (Figure 6.2).

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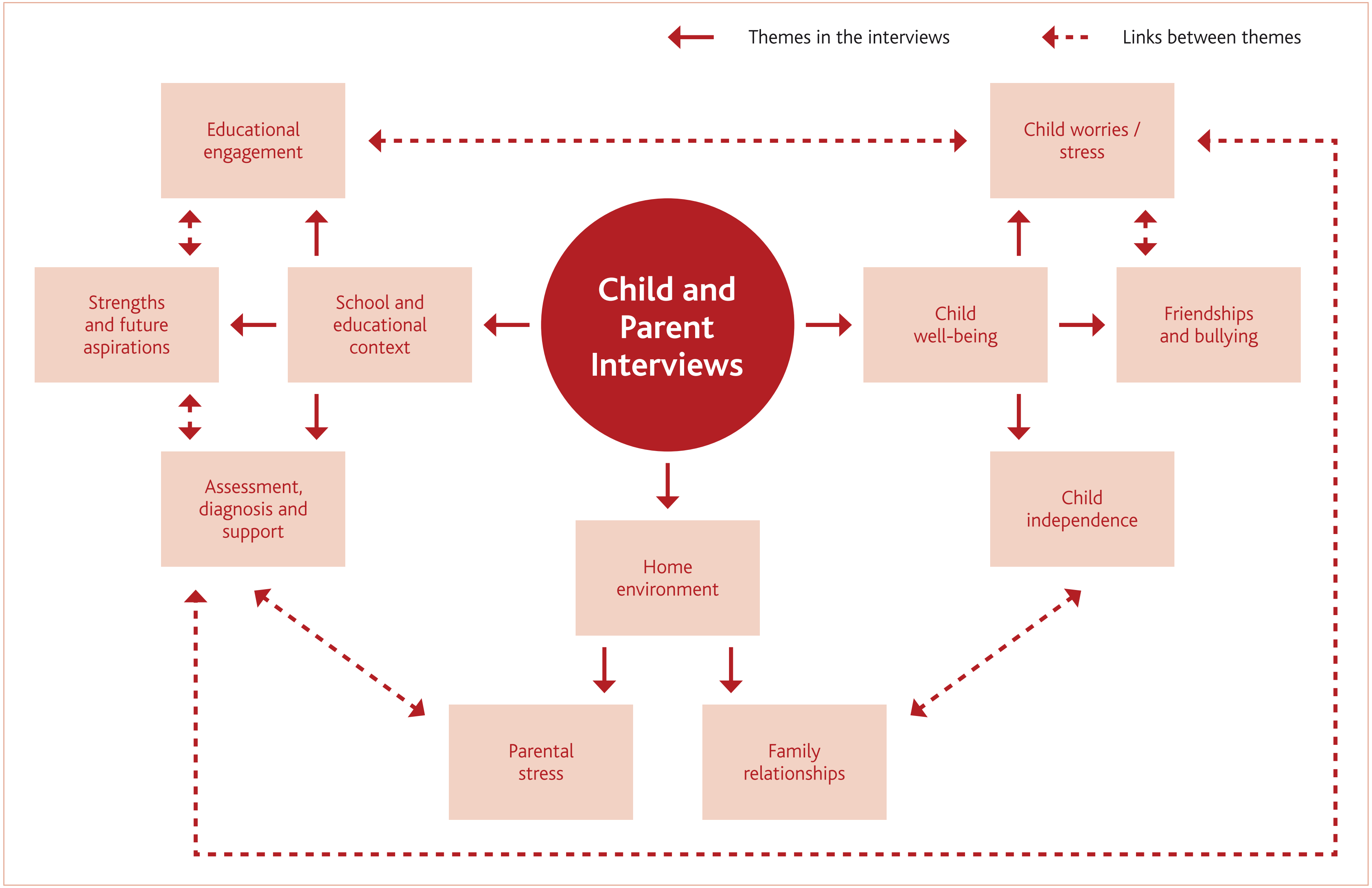
[50] Familiarising yourself with the data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; producing the report.

[51] A data-driven 'bottom up' approach, allowing themes to 'emerge' from the qualitative interviews.

[52] A theoretical or research question driven 'top down' approach; in the case of this analysis, using the results of the analysis of the quantitative data to inform analysis of the qualitative interviews.

Figure 6.2. Visual map of overarching themes and sub-themes



An example of the data coding for the qualitative interviews is shown in Table 6.2.

Table 6.2 Examples of codes applied to child and parent interviews

Data extract	Coded for
'M: He is slightly, you know...I am hoping that he is actually going to get diagnosed @@with language disorder## actually as a result of this testing in @@Irish University##. Because I tried to get him recognised @@with language disorder## before because I know that there is something wrong. Because he is very bright, but he can't really read properly at all and he can't em...you know his spellings are awful, you know it is fine if he has learnt them all off by heart but you know they are really hard.' ***023 Parent Interview***	Assessment, diagnosis and support
'I: can you draw a line with dreams on one side and fears on the other and write down your dreams and hopes and your fears. Can you read out what you wrote ... I: the last one is to do good at school? C: like I'd like to good at school when I get older I: why would you like that C: to get a good job I: and what about your fears C: tests, hurting myself I: why would you worry about tests C: like if there was a test at school I would like to try not to get anything wrong I: what's it like when you do get things wrong? C: it's okay I: what's your teacher like if you don't do well in tests C: like we have two teachers we switch for maths and for tables and if you do really bad like she try and make you annoyed and all of that and she shouts at you I: what's that like for kids C: annoying' ***008 Child Interview***	Strengths and future aspirations Child worries / stress

6.3 General characteristics of the three groups

The GUI report on the findings from the qualitative study (Harris, Doyle & Greene, 2011) noted that nine children who participated in the qualitative research had special educational needs. The research team working on the present study also identified nine children, eight of whom had a specific diagnosis or disorder mentioned during the parent interview, which was subsequently anonymised by the GUI team. Nineteen children were identified as having possible special educational needs related to two issues noted in the parent interviews: difficulties in school and / or SEBD. Six children were identified as having a sibling with special educational needs, three of whom had a confirmed or possible special educational need themselves.

The descriptions give an overview of the profile of each of the three groups, based on the information included by the GUI team in an anonymised spreadsheet deposited in IQDA in addition to the 117 child and parent interviews. Table 6.4 shows the distribution of children in these groups by gender, socioeconomic status (SES), location, family structure and size.

6.3.1 Group 1: Children with confirmed special educational needs

As can be seen in Table 6.3, the children identified as having a confirmed special educational need were more likely to be boys (six of the nine children were boys). There was variation in the social class of children's families: four of the children's families were categorised as low SES, a further three as medium, while two children's families were classed as high. Five children resided with both parents; four families were headed by one parent. One of the four one-parent families was headed by the children's father. There was variation in household size, with three families with three or fewer people, five families with four people and one family with five or more people.

Most children in Group 1 lived in rural areas: six families lived in rural locations, while the remaining three families lived in urban areas. The children and their families resided in different regions across the country with three families in the south-east, two in the mid-west, two in Dublin, one in the Border region and one in the West.

Table 6.3 Demographic characteristics of children and their families who took part in the qualitative interviews (as provided by the GUI research team): children with confirmed SEN, children with possible SEN and children with siblings with SEN

Characteristic	Group 1: Children with confirmed SEN	Group 2: Children with possible SEN	Group 3: Children with siblings with SEN	All children
N	9	19	6*	31
Gender				
Male	6	8	3	15
Female	3	11	3	16
SES				
Low	4	6	1	10
Medium	3	8	1	11
High	2	5	4	10
Rurality				
Urban	3	6	1	10
Rural	6	13	5	21
One- or two-parent household				
One parent	4	5	0	9
Two parents	5	14	6	22
Household size				
3 or fewer people	3	3	0	6
4 people	5	8	2	13
5 or more people	1	8	4	12

* Group 3 includes three children from Groups 1 and 2.

6.3.2 Group 2: Children with possible special educational needs

Nineteen children interviewed have or had possible special educational needs (Table 6.4), with slightly more girls (11) than boys (eight) in this group. There was slight variation by social class with six families with low SES, eight with medium SES and five with high SES. Slightly more children resided in rural communities, with 13 study families living in rural locations compared to six families in urban centres. Most families had two parents residing in the family home, with 14 families with both parents in the family home, while there were five families with one residing parent, which in all cases was the study child's mother.

There was again variation in the size of children's families in Group 2, ranging from two to nine people. Household size differed somewhat from Group 1, with three families with three or fewer people, eight families with four people and a further eight families with five or more people. The study children and their families resided in different regions across Ireland: four families lived in both the west and the mid-east, while three lived in each of the border and mid-west regions. Two lived in the south-west, two in Dublin, and one family resided in the midlands.

Children in Group 2 may be further classified into two sub-groups, as described below.

Difficulties in school (Group 2A)

The children in this sub-group have a range of school difficulties that point to a possible SEN diagnosis. Thirteen[53] experienced difficulties ranging from literacy issues, poor spelling and concentration, generally struggling in school and strong dislike of school, or difficulties in a particular subject. Some identified within this group were highlighted by the interviewer as having difficulties with writing or concentration during the interview. These observations were recorded in the interviewer's field notes.

In some interviews, any difficulties in school raised during the interview were not probed by the researcher or fully expanded upon by the parent(s). However, in general, parents were aware of a child's difficulty in concentrating in class or that they might take a long time with their homework. These comments by the parent(s) were supported by field notes taken by the researcher during child and parent interviews, noting literacy or spelling problems, e.g. 010: 'He did not want to write or draw but interviewer noted literacy issues in the worksheet', 019: 'Spelling was not great but the issue of dyslexia or academic problems did not arise in either of the interviews'.

Of this sub-group of children, three lived in one-parent families, ranging in size from one to three children. Ten children resided with both parents, one family had one child, three had two children, four had three children, while two families had four.

Emotional or behavioural difficulties (Group 2B)

The children in this sub-group were bullied, were worriers or overly emotional, had experienced the death of a parent or were quiet and unresponsive in the interview. Seven children[54] were identified as having a likely or probable emotional or behavioural difficulty. Of this sub-group, two children lived in one-parent families; both of which had three or more children. Of the two-parent families, three contained two children, while one family had seven.

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[53] One child was also identified as having a likely or probable emotional or behavioural difficultly.

[54] One child was also identified as experiencing difficulties in school. Throughout the chapter, this child is identified as being classified into group 2A and group 2B. Similarly, as noted, some children had a sibling with special educational needs, and throughout this chapter, they are identified as being classified into both groups 1 or 2 and 3, where appropriate.

6.3.3 Group 3: Children with a sibling with special educational needs

Six children had a sibling with special educational needs identified by parents during their interview (Table 6.4). Two of the six had also been identified as having a special educational need, while a third child had a possible special educational need. There was an equal distribution of gender with three girls and three boys in this category: two of the girls were twins with a sibling with special educational needs.

Four of the six children's families were classified as high SES, with one medium and one low SES family. Five families lived in rural communities. All children lived with both parents, and household size ranged from four to nine people. Most children and their families lived in the south and west regions: two lived in the west, two in the south-east, one in the south-west and one in the mid-east.

6.4 Findings

In reporting our findings, we have underlined key themes emerging. Interview transcript extracts are reproduced verbatim, and contain some minor spelling and grammar errors.

Overall, parents reported that most of the study children were happy and noted many positive aspects of their lives. However, for some with special educational needs, there were difficulties in a few areas, particularly in friendships / bullying and difficulties in school. Three overarching themes that are relevant to the research questions of this report consistently emerged across the three groupings of children identified in the analysis. These were:

- school and educational context;
- child well-being;
- home environment.

Some areas were not covered by both parent and child interviews, e.g. assessment and diagnosis of SEN, therefore some themes are predominately underpinned by either the child or parent interviews.

6.4.1 School and educational context (Overarching Theme 1)

This overarching theme considers three themes: educational engagement; assessment, diagnosis and support; and strengths and future aspirations.

Educational engagement

Concerns or worries about educational engagement emerged in child and parent interviews. For some children school was perceived as difficult or boring while many placed a high value on the social aspect of attending school. In some interviews, there are linkages between the child's own personality or temperament and school engagement. For example, one child's parents (022, medium SES, rural, Group 2A & 2B) spoke of their daughter's 'excessive busy mind', her poor concentration span and that she was a 'walking worrier'. Despite the difficulties articulated by her parents, she seemed to enjoy going to school but disliked some subjects because she found them hard:

> 'I: Is there anything that worries you?
>
> C: No.
>
> I: Is school a good place to be?
>
> C: Yeah.
>
> I: Do you enjoy school?
>
> C: Yeah because you get to see your friends every day and you don't get to see them every day in the

> summer and then I don't like school because of work.
>
> I: What do you not like?
>
> C: Maths and Irish but I like the rest.
>
> I: Why?
>
> C: I don't like maths because I just don't like a maths and it is hard and you get a test on them.
>
> I: And what about Irish?
>
> C: It is really hard and it is not fun at all.'

While some children disliked school or specific subjects, a few discussed ways to overcome the difficulties they faced. One child (023, high SES, urban, Group 1) said he liked school, 'sometimes' but that also 'sometimes it's like...bad...just boring'. This child later mentioned that he found some tests hard, and others easy and he would prepare for them by revising at home and ask his mum for help. When asked about what things might confuse him, he spoke about being confused in the classroom in a general way:

> 'I: So what kinds of things might make boys or girls get confused?
>
> C: Say like if the teacher is talking about something and you like, put your hand up and say I don't get it or something.
>
> I: And would you put up your hand in school if you didn't know?
>
> C: Yep.
>
> I: And is your teacher nice?
>
> C: Yeah.
>
> I: And would they help you out?
>
> C: Yeah, well sometimes.'

One mother (011, low SES, rural, Group 1) spoke of her son who had dyslexia and found school and homework difficult as he would get frustrated due to features of his learning disability:

> 'M: ...he came home in the last few weeks they are doing divisions and now his short term memory as well so it is very hard. Math's he would be very good. His teacher says he figures ways around things continuously... he sees things quite differently. His imagination is mad. He gets upset. He writes stories for James Bond and he gets upset when he goes back a few days later and even he can't read them.'

One mother (048, low SES, urban, Group 1) spoke of her daughter's difficulties within the structured environment of the classroom:

> 'M: She's a very active child but she doesn't like listening, she'd get up, she can't even sit in one spot for more than a minute, and that's what was wrong with her...'

During the interview with this mother there was no mention of SEN diagnosis although her daughter was not in a mainstream classroom. She was unhappy with her daughter's education a special school in that she felt she was losing skills learned previously, and wanted her to return to mainstream education despite the difficulties she had experienced there:

> 'M: ...they put her into a class this year to see would it improve her and that's after just going beyond a joke.
>
> I: Is that a new class?
>
> M: Yeah there's only five of them in the class but it's a joke, it didn't help at all, it's just gone worse now with her, she's after losing every capability of listening, doing homework or anything.
>
> I: Does that worry you?

> M: Ah yeah, it's terrible, she hasn't had homework for nearly five or six weeks now, the teacher hasn't been in school, no one teaching her.
>
> I: So who's looking after them in school?
>
> M: We only found out yesterday there's a helper, no one else like. And it's…the class was to help kids… there's five or six of them in the class to help them, because she was a bit slow with her English and Maths and her writing, and now we found out there no Irish in the class at all, so that's after putting a lot… now they don't have anything… she's not capable of doing anything now and she's after spending a whole year in school.
>
> I: What class is she in?
>
> M: She's supposed to be in third class but not way… she in babies class… I want her to back into mainstream school but she's not ready, she after spending a total year wasted… they're treating her like a five year old in the class… a lot of other parents in the class have found the very same thing happening.
>
> I: Have you talked to the other parents?
>
> M: Yeah, there's a meeting here in the school tomorrow night'

Assessment, diagnosis and support

SEN assessment was limited to the nine interviews with parents of children with confirmed special educational needs. Some spoke of delays in obtaining an assessment for difficulties their child experienced in school. One mother (023, high SES, urban, Group 1) spoke of her experience of getting an assessment for her son, that although she feels he is intelligent, he has had difficulty with his reading and writing:

> 'M: …I am hoping that he is actually going to get diagnosed with @@language disorder## actually as a result of this testing in @@Irish University##. Because I tried to get him recognised with @@language disorder## before because I know that there is something wrong. Because he is very bright, but he can't read properly at all and he can't em…you know his spellings are awful, you know it is fine if he has learnt them all off by heart but you know they are really hard.'

One mother (032, low SES, rural, Group 1) spoke of the delay in getting her son a hearing aid and how she felt it had affected his speech development:

> 'M: …he only got his hearing aids @@a few years ago## so that has affected his speech so that is why he has a bit of a speech problem and he has to go to the speech therapy so hopefully the hearing aids will help…
>
> I: And does @@Ben## mind going to the speech therapist?
>
> M: No generally he doesn't mind no. Some of the time he might get work to do and he would be fed up cos he gets work to bring home.'

However she said that, apart from the bullying he experienced, she felt had been sorted out, he was doing very well in school:

> 'M: He just needs to keep at it and keep up cos he does say he doesn't like school but he is very good in school and he always gets very good reports even with the hearing problem and all he is doing very well and all so just to keep him at that and give him a bit of a push I suppose [laughs].'

One mother (011, low SES, rural, Group 1) spoke of how the teacher was 'sensitive' to her son's educational assessment and that 'we kind of work around it'. However, there were a couple of incidents where she felt the teacher could have dealt with her son in a better way after he had acted out in school. In one incident, he ran away after being disciplined for calling his teacher a bad name behind her back; his mother was questioning the teacher's method of dealing with his behaviour, noting that he had undergone a lengthy assessment the week before. The extract below raises questions about the level of support required during and after an assessment and the process of reintegrating the child back into the classroom following an assessment:

> 'M: So well I said to her later on was, '@@Mary##, what is he going to learn from this? You frog marched him down the yard to the principal and there was big uproar'. @@Luke## [study child] just got frightened.
>
> I: And he just wanted to get away was that the idea?
>
> M: He wanted to get away. He thought he was in trouble. He didn't deny it and he went down so he took off out over the wall and down home and there was nobody here.
>
> I: Yes?
>
> M: But we discussed that then there was hurt feelings... but give him the chance to apologise... she said no, she just acted on instinct she thought it was very bold but if she asked him to apologise he would have.
>
> I: Yes, yes?
>
> M: Ah sure they get on grand. They get on great so that was basically what that was and he had gone through the previous week a two and a half hour assessment with the educational authorities.'

One mother (117, medium SES, urban, Group 1) whose daughter was undergoing assessment for a possible language disorder had stopped going to the family centre where she was accessing a parenting programme due to work commitments. She also felt that she needed to access counselling for her daughter:

> 'M: Why did I stop...? Because I'd gotten full employment and I couldn't make the appointments... they were doing the... you know the video camera, they were doing that with me and I was trying to get them from messing at bedtime, it was very difficult and it would take over an hour and a half to get them to sleep.
>
> I: Would it be something you would be interested again, getting some kind of help?
>
> M: I think I will, I think I need to get @@Naomi## [study child] counselling to be honest.
>
> I: Have you looked into that?
>
> M: No I haven't, but as I'm saying I need to do it because it doesn't seem to be helping at all, the school didn't help and now I just have to do it, I'm back again on my own, it's hard.'

One mother (093, high SES, rural, Group 1 & 3) mentioned the difficulties her child faced in school and the impact she felt this had on her son:

> 'M: He's having difficulty, as I explained to you earlier [before the tape was switched on], with some of his work at school and I think that kind of affects his personality and stuff like that.'

She went on to mention difficulties she experienced accessing the help her son needed in school and how this affected her stress levels:

> 'M: like at school @@Peter## now, it's going to be difficult to get him the help he needs to get, and to get him the intensity he needs. I'm going to have to put in more here than I'm probably able to do. And if I don't get to do it then I'll find that I'm getting stressed that I'm not doing it – I'd prefer too that there were better services in terms of..., if he needs help it should be given to him through the school without having to be fighting and going off looking for this report and that report, I find that a bit frustrating.'

For some of the parents, when their child had a difficulty concentrating on their homework or is falling behind in a particular subject, the parent(s) saw themselves as part of the solution, helping their child to concentrate on their homework by supervising them or, in the case of one parent, spending extra time tutoring their child over the summer holidays. One mother mentioned that her daughter (033, medium, rural, Group 2A) had poor concentration, a tendency to 'tune out' and that she would spend time with her child on maths:

> 'M: At the moment she is struggling with maths homework so I have to spend some time with her during the summer holidays to bring her up to speed. She has fallen behind a little bit on the maths because she has a mental block on the tables. She just won't do them, so she is falling behind a bit there...'

The parents of one child (017, low SES, rural, Group 1) spoke of the difference in their daughters' engagement with her schoolwork and in her increased confidence due to the support she had received:

> 'I: And does she mind doing her homework?
>
> M: No she doesn't now sure she doesn't. She did for a while. She is dyslexic. Once we found out how to do it she does it herself. The two of us would be pulling our hair out...
>
> I: And does she get help in school?
>
> M: She gets help with maths, English and reading and she gets extra homework as well and sometimes that drives her and because @@Ben## is gone in 15 minutes and she knows. She is flying through it now.
>
> F: There is some difference since she got the extra help. It has made some difference for her reading especially.
>
> M: Her confidence.
>
> F: Her confidence as well.
>
> M: Before she wouldn't even.
>
> F: Chance something. She was so hesitant to make a stab at a word because of the dyslexia.
>
> I: And does she like school now?
>
> M: She likes it more. We keep saying it doesn't matter if you get it wrong we say just try it.'

One of the children (106, medium SES, rural, Group 1 & 3) also had a sibling with a developmental disorder and the child's mother was trying to get this sibling into a mainstream school alongside the study child who had recently moved there:

> 'M: @@Sandra## is doing so well as she moved from a special school to a national school so we are going to try @@Ewan## as well in September and see how he gets on... there is a special needs school in town and they both went and did well there but they need more than that school can offer so hence moving to mainstream.'

Both parents (027, medium, rural, Group 2A) said their son was kept back in school in senior but had since improved at reading:

> 'M: Academically over the years he has progressed as well his first two years in primary now were quite poor. His reading ability was quite low. He spent an extra year in senior infants.'

They went on to discuss how he was doing in school. Despite his difficulties with maths, they highlighted his strengths and achievements in writing:

> 'M: He maybe not great mathematically but I think from an English language literature possible he is going stop on... he won a competition for writing. He writes short stories. Brilliant and he one I think it was €30 voucher for @@Toystore##...'

One mother (011, low SES, rural, Group 1) spoke of her son's dislike of his teachers which was related to the child's sensitivity to noise:

> 'M: ...going to the resource teacher. She is lovely. He likes her. He is not too keen on his teacher. She [is] quite loud and he don't like loud noises, loud sounds.'

However, this mother had few concerns for her son; she mentioned difficulties in getting him into a particular programme for children with special needs, and hinted at plans to use connections within the community to influence this outcome:

> 'M:...in @@Mid-West town2## there is one school in particular that seems to have a great programme for kids with special needs but getting in there can be difficult... but sure who knows with the priest maybe he might pull strings.'

Strengths and future aspirations

Parents discussed their children's academic and non-academic strengths and the hopes and aspirations they held for their future. Children were also asked about their hopes, dreams and worries for the future and many focused on the hobbies and interests they currently enjoy. One boy (032, low SES, rural, Group 1) described his hopes and dreams:

> 'I: OK so what have you drawn here?
>
> C: That I would like to work with animals when I get older.
>
> I: So you like animals?
>
> C: Yeah.
>
> I: And is that a snake? Would you not be scared of snakes?
>
> C: No.
>
> I: So would you like to be a vet?
>
> C: No I would like to work in a zoo or something.'

Other children did express future educational concerns. For example one girl (106, medium SES, rural, Groups 1 & 3) mentioned her long-term career aspirations alongside her hopes to get into a good school, and her worry that she would not do well in secondary:

> 'I: OK what I want you do now is draw or write or tell me what are your hopes and dreams for the future and what are your worries for the future? Do you understand?
>
> R: Yeah. How do you spell fashion designer?
>
> I: F-a-s-h-i-o-n d-e-s-i-g-n-e-r.
>
> I: And is there anything that might worry you about the future?
>
> R: Not really.
>
> I: Can you read out what you have written?
>
> R: To become a fashion designer, to have a happy family, to go to a great school, to do well in tests in secondary school.
>
> I: And what are the things you would be worried about happening in the future?
>
> R: That I won't do well in school.
>
> I: And do you like school?
>
> R: Yeah.'

A great majority of parents valued their child's non-academic strengths, which they felt were, at times, not valued in the same way within the education system. The structured nature of school and the classroom environment, they felt, might not bring out these strengths and could give rise to difficulties. For example, one mother (023, high SES, urban, Group 1) described the drawings her son did when he was younger, noting that he no longer drew like this:

> 'M: He used to draw as a child before he went to school...amazing drawings and of course school destroys it... like this (shows picture) is something that he did when he was four and then as soon as he was in school, like after six months, he stopped doing these drawings... he is clearly an engineer or something like that. So em... and it kind of irritates me because the education system doesn't encourage that and whereas he is doing quite mediocre to average in school... you know he has got a brightness and a smartness that isn't being developed in the school system.'

While parents were aware of their child's difficulties, often the discussion of their educational concerns occurred alongside their child's strengths. For example, one mother (048, low SES, urban, Group 1) contrasted her daughter's abilities and difficulties:

> 'M: She loves geography, she loves talking about the past; she'd be able to tell you anything about Princess Diana, the Titanic, anything. But the basics of maths, English is... nothing.'

One parent (037, medium SES, rural, Group 2A) spoke of the additional difficulties she faced in her role as her daughter's teacher but also noted the strengths her daughter had, focusing on her determination and talent as a singer:

> 'M: It has been a tough year. It hasn't been ideal. She is difficult in the class. Not cheeky but she has poor concentration so I would be focusing on her the whole time so there has been no break for her. I don't envy her. It hasn't been easy. You try and hold back but it is difficult. It will be better for her when she moves on. I had @@Molly## [sibling] too but she was easier and @@Charlotte## [study child] would focus on the thing she wasn't mean to. The room could fall down and she was reading a book. She takes it in her stride and she is good natured... the school is an issue, only more so because of me this year, homework and not concentrating in school.
>
> ...
>
> M: ...we had a school play this year and she got kind of a biggish part accidentally. She took a ribbing at school; they all said it was because of me. She could sing and I needed someone that could sing and she really loved it. I have to say it really brought her out.
>
> F: She was good at it too...
>
> M:...she went to sing the song on her own, I was petrified because it is a big ordeal standing up on her own and she would be a good singer but not brilliant. She started the song and sang the first verse and then in the second she lost her breath.
>
> F: She was second last.
>
> M: I was nearly crying. It was an awful feeling... but you know she kept on singing. She sang through to the end of the song and someone else would have walked off and started crying. Really I thought she was fantastic to do that. It shows she has grit behind it all.'

Parents tended to talk about their child's future in terms of their general well-being. Many tended to focus on their children being happy and 'well-rounded' rather than articulating specific goals in relation to a career or gaining entry to further education. For example, two parents (106, medium SES, rural, Group 1 & 3) spoke of their aspirations for their daughter, focusing on her happiness and their hopes that she would choose a career that she enjoyed and would allow her to fulfil her potential:

> 'M: That she grows up happy and she is happy with her life and that she does something she wants to do and enjoys doing it and she doesn't feel under pressure to conform to anyone else's ideas...
>
> F: There is nothing worse than getting up and thinking, 'I can't stand this job', so hopefully she will pick a career that she enjoys doing. I don't want her life to be a drudge, just going through life. That she makes something of herself and achieves something.
>
> I: And do you think she will have the opportunity to do that?

> M: Yeah definitely.
>
> I: And what do you think needs to happen for her to do that?
>
> M: I suppose she would need to get a good education if that is what she wants, an academic type thing. She just needs to get a good all round life education so she needs to feel as happy as she feels in herself now.'

One mother (014, low SES, rural, Group 2A) said her daughter would 'be slow enough at work at school'; however she hoped she would go on to college and pursue a career that the child herself was drawn to:

> 'M: After her secondary school I hope she goes on to college and studies something that she really, really wants… whatever she's into, whatever she wants to do I'd be happy with that.'

One mother (017, low SES, rural, Group 1) spoke of her positive aspirations for her daughter's future, and how accessing support for her dyslexia had improved her confidence. It is noteworthy here that the parent's focus is on her child's confidence rather than her academic performance:

> 'M: She is on about being a teacher. I would be trying to tell her it just doesn't have to be that… you don't have to settle down for whatever…
>
> I: And do you think she will have the opportunity to do all that?
>
> M: I do yeah. She has the confidence now to do it.'

One mother (093, high SES, rural, Group 1 & 3) spoke of how she was quite worried about her children's future when they were younger, but that this had changed. Despite concerns, her aspirations were not solely education based: she took a holistic approach to parenting (something that emerged in many interviews) and emphasised his becoming a well-rounded individual with family to support him into the future:

> 'M: I'd probably be concerned about @@Peter## going into the future but I feel that there's a place for everyone, I don't really, we don't really have huge… you know, feel they should have to go to college, we just want that they can get through life happy and that they'd have someone to talk to, and that they'd mix with other people. That would be my dream, like I don't particularly care whether @@Peter## goes to college, not saying I don't care, but whatever he chooses to be or whatever, I think the most important thing is to have a stable family around him, and he has good family and stuff like that. And that say tomorrow, if anything happened to us, I know that we'd have family around that would be concrete with him.'

His father also spoke pragmatically of his aspirations for his son with a hope that he would be able to fulfil his academic potential, '[I'd] like to see @@Peter## progress through school to the best of his ability and whatever the future brings, the future brings and that's it, you know'.

Two parents (022, medium SES, rural, Group 2A & 2B) spoke of their daughter's difficulties; her poor attention span and her propensity to get frustrated with activities. She was also a worrier and had a tendency to be 'scatty', but that despite these difficulties they had a holistic focus that she would get a 'good job' and grow into a level-headed individual:

> 'M: Her concentration span would be nil. She would do something for a very short period of time and then she is bored and is on to the next project.
>
> M: I don't expect her to be an A student. As long as she is level and gets on OK and has a nice personality and gets on OK in the world. Once they are happy. You would like them to get on well and get a nice job. We would like her to go to college and get a good job…
>
> F: …You just hope for herself that she does ample enough in everything that she can get on in the world. That is all you can wish for. You can't wish for geniuses and they will be best at everything. You do but if you are reasonable you know that there is no superstars in every house.'

Two parents (052, low SES, rural, Group 2B & 3) spoke of how their son 'wouldn't be over enthusiastic about school' but that, in contrast to two of his siblings who also had difficulties in school, they felt he had the ability to progress and that he was bright, intelligent and showed great potential:

> 'M: I would hope that @@Peter## would do very well because he is an intelligent child and he would have the ability to do great things in life…
>
> F: @@Peter## does show great potential alright, he does seen to have the, if he stick with his study, he has a high degree of intelligence.'

6.4.2 Child well-being (Overarching Theme 2)

This overarching theme of child well-being focuses on three elements: friendships and bullying; child worries / stress; and child independence.

Friendships and bullying

Friendships were a key part of children's lives and most spoke about the number of friends they had, how often they saw them, and why they were friends. For example, one child (033, medium SES, Rural, Group 2A) explained why a particular girl was her best friend:

> 'I: Can you tell me a bit about your friends?
>
> C: They are nice.
>
> I: And do you have a best friend?
>
> C: Yeah. @@Jemma##.
>
> I: And why is she your best friend?
>
> C: Because every time I tell her a joke her face goes completely red.'

Some children (and their parents) disclosed that they had few friends, sometimes due to their geographical location and sometimes for reasons relating to the child's preferences, characteristics or personality. One boy (093, high SES, rural, Group 1 & 3) mentioned that although he had five best friends, he lived a distance away from them and this sometimes led to boredom:

> 'I: Tell me about your friends? Who are your friends?
>
> C: @@Wayne##, @@Richard##, @@Glen##, @@Henry##, @@William##.
>
> I: Would they be your best friends?
>
> C: Yeah.
>
> I: And why do you think you're best friends with them, what do you like about them?
>
> C: Well @@Richard## likes football and I like football as well.
>
> I: So you have things in common?
>
> C: Mmm.
>
> I: Great, are your friends the boys in school or do you have friends from around here? Are they mostly in school?
>
> C: Mostly in school because I kind of, none of them are here.
>
> I: So you live further away than the rest of the boys?
>
> C: Mmm.
>
> I: And what's that like?
>
> C: Kind of boring because if you want to play, like no friends.'

One child (017, low SES, rural, Group 1) tended to play on her own a bit but her parents gave different opinions as to why this happened, in particular her mother offered reasons for it:

> 'F: She is a right little talker and very dramatic with an imagination. She plays great on her own. She is more of a loner than a mingler.
>
> M: She is good to make friends. If we go on holidays she will make friends or if you go to the park but she is more happier playing on her own.
>
> F: There is only the two lads next door. She has no friends, there is one down the road but you wouldn't let her...
>
> M: ...they get on really well I suppose because we are living far away.'

Later in the interview, her parents spoke about one schoolfriend they advised their daughter to keep her distance from as they 'fell out' regularly:

> 'M:...She would come home from school and there is a particular girl she just can't seem to get on with at all. I would say stay away from away [her] and should say I try I try, but she is just this and that. She is fine with everything else.'

In her interview, their daughter mentioned that although she had no best friend, she had several other friends. She also spoke of how she sometimes fought with one @@Rosie##. She later mentioned that @@Rosie## bullied her:

> 'I: And have you ever had a problem with bullying?
>
> C: Yeah they were being mean to me and I felt like crying but I didn't because it is a bit embarrassing as well.
>
> I: And did you talk to anyone about it?
>
> C: My mam or dad.
>
> I: Ok and did it stop?
>
> C: Yeah. My friend @@Dani## actually told me that @@Rosie## used to bully her as well like she did to me and she told me that she did the same to her so all you have to do say stuff to her that she won't like or stuff she won't like or don't talk to her.
>
> I: And are you happy now that it's over?
>
> C: Yeah we are friends now.'

One child's mother (023, high SES, urban, Group 1) spoke of how she felt her son was quite young compared to other classmates and how this had affected his interaction with other children:

> '...he says he's got loads of friends but it's...you know... I notice that it's very much the younger ones in his class and not the older ones you know... that he doesn't quite stand up to the ones that are nearly 11. I can see slight confidence issues which you know I think is really by virtue of him being a June baby...he is like nearly in the wrong year... you know.'

It was common for children to speak to their parents about being bullied; most felt comfortable opening up to their parents about many things going on their lives, including being bullied. Despite experiencing bullying in school, one mother (032, low SES, rural, Group 1) spoke of how it did not stop her son from going to or liking school:

> 'I: And does he like going to school?
>
> M: He does at the moment; he is having a bit of trouble with bullying and that but other than that now usually he has no problems and he doesn't mind, hesitating going or anything.
>
> I: And does he talk to you about it?

> M: Oh yeah he would and we have went to the teacher about it and it is on the mend now kind of… It's mostly two or three little girls.'

One mother (038, low SES, urban, Group 2B) spoke of how her son told her he was being bullied and that they had a close relationship in which he felt comfortable telling her about things:

> 'M: He does get on great with me and he does tell me everything even about school. He was being bullied and he told me. He didn't want to go to school and he wanted days off…
>
> I: And what happened with the bullying?
>
> M: I sorted that out. He used to go to a homework club on a Tuesday and Thursday and now he only goes on a Thursday and he got killed. Now he gets out early cos a lot of them are in the class. I told the principal and the teacher and nothing really happened. It was the second time it happened.
>
> I: And would he be worried about it?
>
> M: Yeah he would be crying to me about it.'

Parents (057, high SES, rural, Group 2B) spoke of concerns and worries they had for their son. They felt his behaviour might make him vulnerable to being bullied. They had noticed a change in him due to three recent instances of bullying:

> 'F: Yeah I think he…we both think that he's a bit vulnerable to maybe bullying or stuff like that, he can be very naïve sometimes, even though he's sharp in terms of… he's deep in terms of his thoughts but sometimes he's very… he can be a terrible, terrible gobshite in groups of people, you know.
>
> I: And you mentioned that he had been bullied a little bit?
>
> F: Yeah.
>
> I: How did that affect him?
>
> F: Ah, very badly.
>
> M: Yeah, it knocked his confidence…
>
> F: He went through three events in quick succession, he just sort of… he had like one in school, and he's one here and… he just had three instances that really made him go into himself you know…'

Many children who were bullied were upset by the experience, though parents were more willing or able to discuss these issues than the children. One mother (026, medium SES, urban, Group 2B) spoke of her daughter's experience and how she feared it would happen again. This mother was proactive in how she dealt with the situation, encouraging her daughter to disclose the bullying. She also intervened in the situation, going to the school without her daughter's knowledge:

> 'M: Like we have heard, I had to go into school; she said two of her friends were fighting and like she was in the middle of it. She wouldn't go into school she stayed here crying for hours. So I actually had to go into the school. She doesn't know I went into the school, she'd never tell me anything again if she knew I went in. And they were actually bullying her you know but she hadn't told me I actually had to get it out of her like, you know and find it out in pictures she'd drawn and her like bring you know [inaudible] and laughed at you know girls would laugh at her. So we had that. That was awful and I'd hate for that to happen again. That would be a big fear I'd have. And going through this like cause it hurt her…'

While her daughter mentioned that two of her friends had been fighting in school, she did not disclose any incidence of bullying in the interview. She also stated that she would not retaliate if she was being bullied; instead she would speak to a teacher about the problem:

> 'I: Okay, so have you ever had any problems with any of the boys or girls in the class?
>
> C: No… once my friend and my other friend, yeah they started fighting.
>
> I: And what happened?
>
> C: They got in trouble from the teacher.
>
> I: Okay so what would you do if you ever had a problem with the boys and girls? What kind of… what you think you might do?
>
> C: Well if they hurt me I wouldn't hurt them, I'd just tell the teacher.
>
> I: Just tell the teacher?
>
> C: Yeah cause if I hurt them after, then they'll just have something to tell on.'

Consistent with parent and child reports of bullying in Chapter 3 of this report, there appear, at times, to be discrepancies between the views of parents and children, whether the child was being bullied or not or if a child chose not to disclose that they were being bullied during the interview. An example of this comes from one mother and her son (008, medium SES, rural, Group 1). While it is not evident in the child's interview that he thought he had been bullied, he mentioned that he had 'seen' bullying:

> 'I: …Have you ever seen bullying?
>
> C: I think a few times.
>
> I: What kinds of things do you think people do when they're bullying someone?
>
> C: Don't know.
>
> I: What would you do if you saw someone being bullied?
>
> C: Don't know.'

His mother commented that while her son had previously told her that he was being bullied, she believed it was related to normal child interaction:

> 'I suppose there's a bit of competition I suppose its healthy competition… he would talk about it as bullying but I don't think it's bullying I think they all go into their little cliques…'

Although the parents of one child (052, low SES, rural, Group 2B & 3) did not mention it in the interview, the researcher stated in the fieldnote that their son spoke about being bullied by an older sibling. This made him feel angry and 'when he feels angry he wants to hit someone and / or make them cry'. The researcher noted that the mother was aware of this, but it was not discussed in the parent interview.

Child worries or stress

Many children faced what they perceived to be worries or stress in their day-to-day lives. Worry and stress were reported by children on a range different aspects of their lives, for example school, body image, spending time with non-resident parents and the local neighbourhood.

Several children spoke of stress or worry around taking school tests. Some mentioned that their friends also felt stressed by tests. For example, one boy (057, high SES, rural, Group 2B) of stress he experienced:

> 'I: …do you ever feel stressed?
>
> C: yeah
>
> I: When do feel stressed?
>
> C: Like when I have a test coming up but I need to do other things, think like on the same time and I get all stressed.
>
> I: What does that feel like to be stressed?

> C: Bad.
>
> I: Bad yeah? Is there anything you do to stop feeling stressed? How would you cope with it?
>
> C: Just think of something else.
>
> I: Would any of your friends feel stressed much?
>
> C: Yeah.
>
> I: And what would they get stressed over?
>
> C: Sometimes... the same thing really.'

This child also discussed what he thought life would be like when he was 13: he believed that secondary school would be a lot harder than primary, with particular reference to three subject areas:

> 'I: Brilliant, so can you tell me what you wrote down?
>
> C: School will be a lot harder because I'll be in secondary school, and I'll be..., I will have a lot more friends, I will be taller.
>
> I: So you think school will be harder when you're in secondary school?
>
> C: Yeah
>
> I: What will be harder about it do you think?
>
> C: The history and the geography and maths.
>
> I: Do you think teenagers have anything that they worry about that kids your age mightn't, what kind of stuff would they worry about?
>
> C: If they're having their Junior Cert or Leaving Cert.'

During some interviews, parents mentioned that their children were slightly heavier or overweight[55] compared to peers. One study child's parents (027, medium, rural, Group 2A) spoke of their son's experience, saying this was a concern for them as he was self-conscious about his appearance:

> 'F: ...I try to make him less self-conscious of it and just give him a big tickle and he love it is. He gets a wee bit of stick over it but it will go down... he would say a lot to me maybe if there was no one else around, like he mentioned his weight and he would be conscious of it sometimes...Like he wears glasses and he doesn't get that much grief about it... He handles it well. He is the type of child he will handle anything unless if it really bugs him he will say it...'

One child's parents (022, medium SES, Rural, Group 2A & 2B) spoke of their daughter's difficulties concentrating, that she had a 'busy mind' and an anxious personality but that she was also very happy in herself. They also mentioned that if something was worrying her, she might have tended to keep this from them:

> 'M: She would tell you whatever is going on sometimes but if it something major she will keep it to herself.
>
> F: She would keep us apart.
>
> M: A lot of major things have happened and you would hear it from someone else. She won't tell you. Minor things she would tell you.
>
> I: Do you think it is because she is a worrier?
>
> M: Yeah.
>
> F: She is a walking worrier. She has the nails bitten off herself.'

---

[55] Body image was a topic that was explored during the child interviews with flash cards with images of children ranging from very thin to overweight. Children were asked to choose which of the images look the healthiest to them.

A few children experienced anxiety in relation to spending time with non-resident parents. One mother (055, medium SES, Urban, Group 2B) spoke of how her daughter could be emotional at home and would be anxious anticipating spending time with her father:

> 'I: Do you mind me asking she never mentioned Dad?
>
> M: I know.
>
> I: I'm just wondering I don't know the situation and I don't need to know just wondering is he…
>
> M: No she would see him every couple of weekends but she would be very anxious around him. I can see the signs in her when you know he calls for her or when he is on the phone you know or when it's coming up to the weekend, she gets terribly anxious about you know.
>
> I: Does she spend the weekend with him?
>
> M: She does yeah.'

Another mother (023, high SES, Urban, Group 1) spoke about her older son [study child's sibling] and his not wanting to see his father after he had separated from his mother:

> 'M: I felt it was my responsibility as a parent to you know, kind of heal all of these things and deal with the issues and try to force him to have a proper relationship with his father. I mean for years, when we were first separated, when he didn't want to go he'd always put it upon me to tell the lie or whatever it was…'

Outside of worries and stress around school and family relationships, some children were worried about other aspects of their lives. For example, one girl (048, low SES, urban, Group 1) spoke about the area in which she lived in and how her sleep was disturbed by the noises there at night:

> 'I: Tell me what it is like living around here?
>
> C: Well, it's kind of hard.
>
> I: What's hard about it?
>
> C: This is my teddy.
>
> I: What's his name?
>
> C: He's called @@Paddington##.
>
> I: And what's hard about living around here?
>
> C: It's very hard living around here…, say if I was a Mam and I want to live in @@Dublin region1##, it's very hard, it's very complicated, and I want to get more sleep.
>
> I: Why would [you] not get enough sleep?
>
> C: Because there's cars that keep going up and down the road.
>
> I: Is that this road here?
>
> C: Yeah…'

Child independence

Many parents spoke of the independence their children were asserting at age nine. Some spoke of their growing independence while also describing how their children were quite attached to them.

For example, one mother spoke about her son (023, high SES, urban, Group 1) whom she felt was growing up quickly. However, she also mentioned that he was 'not good at being alone' and looked to come and sleep in her bed most nights. She was informed by her previous experience with her older son:

> 'I: So is he becoming more independent?
>
> M: It's natural...but it is sort of a little, you know, I find you know I did it with my older one as well, you know, you make six months' worth of mistakes before you realise that the child has changed. So you know, you know I can see he is changing...you know I can see, you know like he is watching these teenage shows and they are all pretty girls and you know, I can see, you know I talked to him about Hannah Montana (TV Show) and he started blushing so I can see he is moving into the next phase you know (laughs). And you know long before their body changes.'

She later went on to discuss letting go of her son and allowing him some independence and how this was daunting for her:

> 'M: But I let him go out know with friends to the park by themselves as long as they have got a mobile phone with them or something. This part of letting go, is very tricky. And I mean, I know some people are like very cool about it, but I mean, I like spent the first @@several4## years with @@Oliver## in @@European City## and that was way too scary you could never let them out of your sight. So that's a real sort of problem as a parent. Learning to let them go. And you know, whether I would leave them alone now in the house. He actually wants is now you know for 15 minutes during the day time now not at night or whatever. So it is just this question of....yeah you know. Letting them go it's so scary.'

Outside of exhibiting signs of growing up, parents reported that some children were helpful around the house. One mother (008, medium SES, rural, Group 1) described the tasks her son did in the house to help out. Even so, the emphasis remained on his homework although she felt that at nine he could help out more:

> 'M: He'd do small little jobs like with bringing in sticks and he'd help with the washing up maybe but mainly he'd be coming in from school at three the dinner would be there and then the biggest thing would be the homework that maybe he'd get a start made up on it and then when I get home in the evening this would be the thing that we'd get on with the homework...
>
> ...
>
> M: ...he'd do little jobs for me; he probably isn't doing as much as he probably should be doing... I suppose we aren't... we should be giving him more to do at their age... I suppose my biggest thing would be that I would like them to get a good education and I don't mind if all they do is the homework and I don't mind if they put the effort in to the homework cos I can do the other jobs in my own time.'

Parents of two children with special educational needs (093, high SES, rural, Group 1 & 3) spoke of the differences they encountered raising their children due to the developmental disorder the study child's sibling had. For them, although their son @@Peter## (study child) had his own difficulties, and may not have been as independent as his peers, they felt he had a better chance of 'getting through life':

> 'M: I suppose for me I'd be a bit more worried for @@Victor## [sibling] than I would for @@Peter## – even though I know @@Peter## has difficulties himself, I'd tend to think that @@Peter## would have a better chance of getting through life than @@Victor## would... if you look at the other 10 yearolds that are around the place they're probably doing a lot more than @@Peter## is in terms of independence and stuff like that, whereas I wouldn't let @@Peter## on a bike down to the shop, you know I think I'd be a bit more over-protective because I've been protective of @@Victor## and that you know. We don't tend to look at the two of them separately...'

6.4.3 Home environment (Overarching Theme 3)

This overarching theme examines family relationships and parental stress.

Family relationships

Family relationships[56] include parent-child and sibling-sibling relationships. A strong theme across the parent and child interviews was the close nature of the parent-child relationship. Some of the children appear to have different interactions with their mother and father. One mother (017, low SES, rural, Group 1) expressed how her daughter sought out interaction with her parents, noting the differences between herself and her husband:

> 'M: Even if I hop into the bath she would love to come in and chat and say will I wash your back. She wants to be constantly doing things with you. Or even sitting down she would want to sit on top of you not beside you. She is always craving attention. She wouldn't give you a minute now…
>
> I: How does she get on with her dad?
>
> M: Very good. She would always be 'dad this', and she would follow him around, 'did I tell you this dad?' They tell him things, 'did I tell you what I did in school today?' whereas they wouldn't think of telling me I think because they are with me…she would ask him to do more things because she would know I wouldn't have as much time. Even just to play on the trampoline or go into the garage.'

One mother spoke during the interview of her relationship with her daughter (055, medium SES, urban, Group 2B), how the study child was attached to her and often was emotional at home with her family:

> 'M:…she is now very attached at the hip, the minute she sees me she wants to be with me and do you know she still sleeps with me most nights…I would find eh quite emotional at different times, but at school when I would have ask the teacher, not a bit emotional, she wouldn't be tearful at all at school…you know she could cry quite easily like I say I talked to the teacher and she's never said anything.'

Not all of study children lived with both parents; at the time of the interviews nine lived in a household headed by one parent. The experience of living with one parent emerged in different ways in the interviews. The parents of one child (023, high SES, urban, Group 1) split up when he was aged two and his father had a new wife, with step- and half-siblings. However the child's father had recently split with his wife and the study child hadn't seen his step- and half-siblings in three months at the time of the interview. According to the child's mother, her son did not differentiate between his immediate family and his father's new family unit:

> 'M: I do notice that for example when he is talking about his family he just talks about [it] as a one unit… he doesn't talk about it as two separate things… you know. It is probably something that… I can imagine you probably know better than me, but kids don't want to be different so you know he is… you know and I see that in his confidence. He is, well he is not brilliant at being alone.'

There was a noticeable difference in how the study child spoke about his mother and father in the interview in that the only direct reference to his father was about holidays or getting to see his grandparents in the UK:

> 'I: Ok. And what about your mam how do you guys get along?
>
> C: I hate her (laughs). Em…eh…em…we get along fine (laughs).
>
> I: And what do you do together?
>
> C: We play board games and stuff.
>
> I: Brilliant. And what about your dad, how do you guys get along?

---

[56] Children's relationships with extended family, including aunts, uncles, cousins and grandparents were also a feature of the child interviews, however do not form part of the analysis in this study.

> C: Em...well we like, we like spend lunch time together when I am on holidays and stuff. And we eh... that's all.
>
> I: Ok. And your grandparents?
>
> C: I...I...I...uh...
>
> I: Do your grandparents live here?
>
> C: No they live in @@UK##.
>
> I: Do you see them much?
>
> C: I see them whenever I go to my Dad.'

The study child went on to describe what he thought parents are meant to do when asked by the interviewer:

> 'I: So what do you think parents are meant to do?
>
> C: Look after the kids.
>
> I: Yeah? And what does the perfect parent do? And [an] ideal parent?
>
> C: Look after the kids.
>
> I: And what would make somebody not such a good parent?
>
> C: Not looking after their kids.
>
> I: So when you say looking after the kids what do you mean?
>
> C: Spending lots of time with them.
>
> I: Lots of time.
>
> C: Yes.'

This child's mother discussed how she dealt with her son's contact with their father and how she handled it differently with her younger son [study child]:

> 'M: ... I dealt with it [relationship with father] differently with @@Frank## like from a very early age I said if you don't want to go you tell your dad. And it was really hard for him. Like he would cry but he did do it and now he does it without a problem.'

The mother of one boy (117, medium SES, urban, Group 1) described the relationship between her son @@Simon## and his father. Despite his father moving to the UK and the difficulties the family faced previously with his alcohol problem, she felt her son was close to his father:

> 'I: How would you describe the relationship between @@Simon## and his dad?
>
> M: Great oh my god!
>
> I: Even though they don't see each other that often?
>
> M: Exactly @@Simon## was bawling when they said they were moving... He loves daddy more than me. One night he was in bed and all of a sudden he started crying. I feel sorry for him if I could move @@Martin## [child's father] over here I would. His confirmation [was] last May @@Martin## and @@Sinead## the girlfriend came over for his confirmation and they stayed from Thursday to Monday they brought them to the park and for a spin and that and an hour before he was ready to go to @@region## airport he started crying because he was going back to @@UK## again. He was glued to him the whole four days even though things weren't great when he was drinking and we were living together but the doesn't register at all.
>
> I: Yeah he would have been very young.
>
> M: Yeah he would have been very young so right now like see @@Martin## is a brilliant father he's great with then he's always messing and playing and whatever they want to do he'll do it ...his daddy is the biggest thing in his life.'

One mother (087, high SES, rural, Group 2B) spoke of how her daughter's father had died several years previously, but that the study child did not mention him at all in her own interview. She noted how his death had affected her daughter:

> 'M: She is very insecure because of what happened with her dad. She can be, and I am working on it at the moment, it's like everything has to be her way and be in control…'

However her mother hoped that she would persevere and noted that everyone encounters difficulties in their life:

> 'I: Any other hopes?
>
> M: [That] she gets through and gets over all she has been through and that she is sensible and does the right thing. Everyone has problems.'

Many parents spoke of how their children were quite different from each other. The parents of one girl (106, medium SES, rural, Group 1 & 3) described of the approach they took in their parenting and the types of interaction preferred by each of their children:

> 'M: @@Ewan##, with his @@developmental disorder##, would be more rigid, more, less, like @@Sandra## likes interaction with us and she loves to do stuff and go for a walk and that stuff and @@Ewan## would be more set and less likely to do that.
>
> D: Less reliant…
>
> M: On our input and companionship I would say…
>
> D: She tends to get bored if there wasn't someone in the room to talk to and 'can I should [show] you this or that?'
>
> M: 'Somebody come and sit with me'. So if he is in here doing something, one of us would be with him and one with her if they are not in the same room. That would be the difference.'

One mother (093, high SES, rural, Group 1 & 3) spoke of getting on well with her son, while his father noted that his son was more attached to his mother. They both spoke of how having another son with a developmental disorder affected the time they got to spend with the study child:

> 'M: Well I feel I don't give @@Peter## [study child] the time he should get because of the situation with @@Victor## [sibling].'

This mother also mentioned that she thought her son had missed out one some things due to his sibling having a developmental disorder:

> 'M: @@Peter##'s missed out because @'Victor##'s…, you know that he hasn't other children and family that didn't have a disability, that we hadn't maybe 3 or 4 children sometimes – in saying that it's great to see the two of them mixing…he's say he wants his brother changing but he's still very affectionate towards @@Victor##, he does love him.'

Parental stress

Some parents spoke of stress they experienced in their day-today lives and in parenting their children. They discussed different strategies they used to counter the extent of this stress and attempts made to limit its impact on their children. An area of particular concern or worry for parents in many interviews was their child's potential alcohol and drug use.

One mother (087, high SES, rural, Group 2B) spoke of how her children picked up on her stress:

> 'M: Sometimes it is hard. The kids pick up on it and they know when you are stressed and that is hard. You have to stop yourself and think you can't do this because they are suffering, because kids, if you are in bad form they know. It is not fair to them.'

Both parents of another child (106, medium SES, rural, Group 1 & 3) spoke about their worry for the future of both their children (with developmental disorders). There is a certain pragmatism exhibited by parents of children with an identified special educational needs in that they are realistic about the concerns they have for them in the short and longer term:

> 'M: …the @@developmental disorder## is the unknown future, hope they will cope. They are both going to need our help. What they are going to be like growing up. I am sure that causes every parent stress anyway. That's all.
>
> I: And how would you cope with that stress and worry?
>
> D: We don't have sleepless nights worrying about it no.
>
> M: You have to face things when you have to deal with them as best you can.'

One mother, who described herself as a 'single parent' of four children (055, medium SES, urban, Group 2B) mentioned that having a new partner had helped to ease the pressure she felt by allowing her to have time for herself:

> 'M: I suppose since having a partner and that's helping a little bit, he kind of takes the pressure off a little bit, off study and things like that you know. I have been doing a little bit of training lately a couple of hours a week and it great.
>
> I: Why is that so good?
>
> M: Well I go out on the bike and I do training…
>
> I: That's important to you?
>
> M: Yes.
>
> I: Can I ask why?
>
> M: Because I find for that hour she's being looked after all my negativity from work and I feel much better and sleep much better, and you know I do suffer a lot of anxieties and that hour I am doing that.
>
> I: And is that your 'me time'?
>
> M: Yes.'

Regardless of parents' financial and other circumstances, a strong theme to emerge was sacrifice or putting children's needs first. In the following extracts, parents' priorities for their children are clear, despite different financial and occupational circumstances. One mother (017, low SES, Rural, Group 1) discussed her difficulties in providing the children with all that they wanted and finding money to pay for all the activities they take part in:

> 'M: I find it hard to try and keep up with what they want. The lads are great if you explain to them that I don't have money for everything and she would say I'll save up my money and she would if she really wanted something. It is hard to keep up with everything they want to do; the dancing, the school trips, and they want to do the swimming. The book club that comes to the school they would always want a book but this year I said we just can't afford it. But they have loads of books.'

Another mother (117, medium SES, urban, Group 1) spoke of how she encouraged her children to save, with particular reference to a trip to a European country. The father of her children 'has nothing' which she attributed to the instability of the hours he was working in his job in the construction industry. Her son [study child] was the 'best saver':

> 'M: I have to two of them saving. They have their ticket paid but now they have to save for their spending money because I give them pocket money every week. @@Simon## is the best saver. If he gets ten euro pocket money he will give me five or he's only giving it to me for spending money for

> @@UK## to mind but other than that if he hadn't anything to do with it he'd have it saved for if he needs anything he gives it to me because he worries about me. He really does worry about me.'

However, not all parents faced financial difficulties or worries. One mother (023, high SES, Urban, Group 1) spoke about her successful work life, but felt that parenting her children was more important to her:

> 'M: And I think that I have, the philosophy is that ...I mean I have had a lot of success in my life, you know, I have had a couple of careers and made a lot of money and you know this that and the other and I have em....you know I have had a really you know fantastic life but it means nothing if my children are dysfunctional to me as a parent. And you know I was working in @@UK city## as a @@professional## and my older boy had @@medical condition##, he was borderline @@psychological disorder##, he was... I was working like 12 hours a day at least. His father was as well. So I stopped working and within you know six months I saw @@Oliver## [study child's older sibling] like completely change.'

Another mother (106, medium SES, rural, Group 1 & 3) also spoke about how her children's developmental disorder limited her ability to work outside the home:

> 'M: When they both have @@developmental disorder## it wouldn't have been practical to work. I prefer to stay at home and spend time with them.'

6.5 Chapter summary and conclusions

The qualitative data collected during Wave I of GUI provides useful insights into the varied and individual contexts that children with special educational needs live in. We analysed parent and child interviews and field notes from 31 children which we classified into 3 groups: Group 1 comprised children with a confirmed special educational needs, Group 2 consisted of children with a possible or likely special educational needs, and Group 3 consisted of children with a sibling with special educational needs. The individual characteristics of the children in these groups varied widely. Nonetheless, it was possible to identify three overarching themes that cut across all three groups. These are summarised below.

6.5.1 Overarching Theme 1: School and educational context

Children's perceptions of school as difficult or boring were reasonably common in the child interviews, though it was also clear that they valued and enjoyed its social aspects. Some children's negative perceptions may have been based on a dislike of certain subjects with which they encountered difficulties. Several specifically mentioned tests as a source of worry, and others had concerns that school would be difficult in the future. There is evidence in parent interviews that the classroom's structured environment did not suit their children, that non-academic strengths were not valued within the education system in the same way as the parents valued them, and that this can give rise to difficulties such as disengagement or acting out.

In discussing the assessment and diagnosis of their child, some parents indicated that delays in the assessment process may have had a negative impact on their child; one interview suggested that the assessment was quite onerous for the child. This in turn may have implications for the support available to the child during the assessment and when reintegrating him/her into the classroom. A few parents were positive about improvements in their children after receiving support, and tended to emphasise non-academic changes (e.g. increases in confidence) rather than academic progress.

In describing their children, parents commonly framed them in holistic and pragmatic terms, showing awareness of strong and weak points, academic and non-academic. In considering their child's futures, they placed a strong emphasis on overall well-being. For example, some parents described their children's future education and work lives in terms of what the children themselves were interested in, rather than a 'good' job or a well-paid career. Although children were aged nine, it is nonetheless noteworthy that not one parent mentioned CAO points or college entry requirements or any concerns relating to these.

6.5.2 Overarching Theme 2: Child well-being

In broad terms, the children included in this analysis can be described as reasonably happy and well. Friendships formed a major part of their lives, although some had few friends or saw them rarely. Reasons for this varied, for example due to the distance between the child's home and those of his or her friends, or a preference to spend time alone.

The descriptions of bullying in the interviews can be regarded as problematic. There is evidence that some children did not discuss bullying incidents during their interview while their parents described them as upsetting for their children. Reasons for this are unclear; some may relate to children being nine at the time of the interviews and many would not have been capable of articulating these incidents or their impact. They may have felt shy, embarrassed or uncomfortable sharing this information with the researcher. There is also evidence that parents may not have had opportunity to consider bullying in depth in the interviews; for example bullying of one study child by a sibling was noted by the interviewer in the field note but not discussed during the interview with parents. Also, a few interviews indicated that what parents perceived to be part of normal interaction may be perceived as bullying by the child. On a positive note, a consistent theme to emerge was the willingness of children to talk to parents about worries or concerns, including bullying.

Children mentioned stresses or worries in their day-to-day lives and some referred to worries about taking school tests and dealing with secondary. Given that body image was covered as a specific topic, it is not surprising that weight emerged as a concern in some interviews. This did not appear to be a major concern for any of the children or their parents, however.

Children living with one parent differed in their relationships with the non-resident parent: for example, one child reported being close to his non-resident father, while another appeared to feel anxious about spending time with her non-resident father at weekends.

By and large, parents described their children as being independent, yet still very much attached to them, which is not surprising for this age group. Some praised their children's ability to help at home, while others expressed difficulties at the prospect of 'letting go' as their child got older.

6.5.3 Overarching Theme 3: Home environment

One topic explored in interviews was family relationships (parent and child, and among siblings). The families whose interviews were studied appeared close with strong bonds among individual family members.

A reasonably common theme to emerge from this was the finding that there were differences between how the child interacted with his or her mother and father, which is not surprising. Some appeared to be more attached to one parent. As mentioned briefly in the overarching theme on child well-being, those living in one-parent families varied in their level of closeness to the non-resident parent.

Similar to what was observed in our exploration of the theme of bullying, evidence suggests that children tended not to mention or discuss difficult life experiences (in one interview, the death of a parent was not mentioned by the child; the deceased parent, in fact, was not mentioned at all).

Differences between siblings were commonly observed by parents, and this played out in differences in parenting styles and the types of interactions between parent and child. There is also some evidence of negative impact in terms of spending time with children when a sibling of the study child had special educational needs and / or difficulties in his or her relationship with the parents; that is, parents felt these took from time they would otherwise spend with the study child.

As might be expected, varying stresses and ways that parents dealt with these emerged reasonably frequently in the interviews. Parents were generally aware of the need to minimise the impact of these stresses on their children and mentioned various strategies they used to cope with them. Some indicated that their child's special educational need was a cause of stress, but their interviews indicate a degree of pragmatism and adaptability to the challenges that this brought.

A strong theme to emerge was that, regardless of individual family circumstances, parents frequently mentioned prioritising things and making sacrifices such as work v stay at home, spending and so on to put their child's well-being first.

7. Conclusions and Recommendations

7.1 Aims and study limitations

This study aimed to provide new evidence to help us to better understand how children with special educational needs are faring at school in terms of academic attainment or achievement and educational expectations; participation in and engagement with school and learning, and their learning progress and expectations; independence skills, self-esteem, well-being at school, and relationships with teachers and peers. Two further goals were to identify and analyse factors associated with these outcomes, and to identify potential implications for educational policy and / or practice. In doing so, we used data from Growing Up In Ireland, a large-scale, ground-breaking longitudinal study of children in Ireland. Since this study uses only data from Wave I of GUI, this should be viewed as a baseline report which could be built on using the Wave II data from GUI (collected when children were aged about 13), along with other relevant data sources.

In pursuing these aims, we set out first to classify children with special educational needs on the basis of the GUI nine-year-old dataset which contains data, collected in 2007-08, from 8,568 children. Then, we identified indicators of achievement, educational expectations, participation and engagement in school, independence, well-being and relationships. In a further step, we selected background demographic, socioeconomic, and home, school and community characteristics for analysis to better understand the relationships between outcomes and the 12 groups of children with special educational needs in our classification.

Some limitations of the study mean that while that most aims have been achieved (some more completely than others), some have yet to be addressed. Seven limitations are described below.

First, the GUI nine-year-old dataset, although part of a longitudinal study (with a second wave of data collected when children were aged 13), is in and of itself cross-sectional. This means we have been unable to examine any aspect of children's progress over time. This area, however, could be addressed by following up the children with special educational needs as identified in this report in analyses of the second wave dataset (released in June 2014).

Second, the classification of children with special educational needs, although felt to be the best possible on the basis of the data, is not unproblematic. This is because GUI was not specifically designed to permit a detailed SEN classification. While it did include questions relevant to SEN for teachers and parents, the questions asked of these two groups were not consistent with one another. There are also gaps in the classification in that SEBD and GLD were not asked about directly and therefore needed to be inferred from the available data. We have no way of differentiating between children with mild, moderate and severe GLD and this group of children is likely to include some with milder learning difficulties who have not been diagnosed with either a general or specific learning disability. For this reason use of GLD includes difficulty as well as disability. Also, the classification of children with multiple special educational needs is also complex, not just on the basis of the GUI data, but arguably on the basis of any data.

Third, and arising from GUI not being designed as a SEN-specific study, GUI gathered some, though not detailed, information on supports received by children with special educational needs. It gathered no information on teacher / parent views on whether they think their children were being adequately supported in their education. Therefore resource allocation and support is an area we are not in a position to consider in any depth.

Fourth, the sample design and response rates for the nine-year-olds participating in GUI also put limitations on the type and level of possible inferences. Response rates, at 57 per cent, though acceptable by survey standards in general, are a little low, and while the sampling weights can account for much of the bias arising from non-response, they may not account for all of it. The sample was designed to provide representative estimates for the population of nine-year-olds in Ireland, but not schools or classrooms. This means that while analyses of school and classroom characteristics are certainly possible (and have been included in this report), they are not necessarily generalisable to the country's population of schools or classrooms. Some potentially useful information was not included in the GUI sample design. For example, we do not know whether children were in special classes. Limitations of the sample should be borne in mind when considering findings relating to the clustering of children with special educational needs in schools and classrooms in particular.

Fifth, while the qualitative data provide a detailed and subtle context for helping us to better understand some quantitative findings, it should be recalled that there is no direct match between the qualitative and quantitative datasets. So, for example, while children with special educational needs have been identified in the parent interviews, we cannot cross-validate this with the SEN classification arrived at on the basis of the quantitative data. Nor can we use quantitative data (such as Piers-Harris scores, reading and mathematics scores, parental education and levels of financial stress) to add context to the broad qualitative interviews.

Sixth, the numbers of children in some SEN groups examined here are too small to allow us to comment on SEN to the extent we might have liked to.

Seventh, the experiences and outcomes of gifted children were not included in the specifications for this study, so we are not placed to comment on this aspect of SEN, but mention it as an area in need of study at a future date.

This chapter revisits seven themes that arose both in the literature review and the results of the present study. Under each theme, we propose between one and four recommendations, 17 in all. Since this is a research report, we have not specified timelines or actors for these recommendations, though suggest that applying these to the recommendations, along with a consideration of their feasibility, would be a useful next step. We acknowledge that some recommendations may be more difficult to implement than others. We also acknowledge the work of the NCSE's Working Group on a New Model for Allocating Teaching Resources (NCSE, 2014), and steps yet to be taken to fully enact the EPSEN (2004) legislation.

We have attempted, in examining children's individual backgrounds, to draw a distinction between socioeconomic features on one hand (parental education, occupation, percentage of household income from social welfare payments, and perceived financial stress), and home environment on the other (e.g. entertainment devices in the child's bedroom, indicators of lack of basic care, adverse life events). We believe that socioeconomic indicators alone are not sufficient to characterise and understand the outcomes and experiences of these children.

It is acknowledged that this report contains a high number of analyses that span a wide range of themes. In the interests of keeping this concluding chapter to a manageable length, we do not attempt to provide a summary of key findings. We suggest instead that readers refer to the Executive Summary at the beginning of this report for an overview of the main findings.

7.2 Assessment and progress

In the introductory chapter and in Chapter 3, we noted that our knowledge of the educational performance of children with special educational needs is limited, both by lack of appropriate assessment instruments, and by a dearth of longitudinal data. The GUI dataset does include information on children's mathematics and reading achievement, but this is on the basis of rather broad and general measures of reading and mathematics. Importantly, there is no systematic information in the Irish context on the levels and types of progress (academic and non-academic) made by children with special educational needs, and it is likely that teachers would find this information valuable in allowing them to adjust teaching and learning of individual children, as well as communicating with parents about their children's progress and how best to support their learning. Furthermore, the wide range of proficiencies demonstrated by children with special educational needs on the standardised tests of reading and mathematics, coupled with considerable differences between these children on a range of social, emotional and behavioural outcomes, underlines the need for individualised educational planning for them (NCSE, 2006a, b): though required under the EPSEN Act, this part of the Act is yet to be implemented.

We also noted that the Drumcondra reading and mathematics tests suggested very different standards being attained by children, when compared to parent and teacher ratings, and that some evidence suggests parents and particularly teachers might be 'underestimating' the standards achieved by children with special educational needs relative to their peers without. On the other hand, teacher ratings are likely to reflect a range of other factors that standardised tests cannot measure well. While there are a variety of possible reasons for differences between test scores and teacher and parent perceptions of children's proficiencies, this finding nonetheless suggests that teachers could benefit from guidance and support in measuring how children are doing in school and communicating this effectively to parents.

i. It is recommended that efforts are continued and renewed to implement individualised educational plans, and to monitor the progress of children with special educational needs on the basis of these plans. In doing so, staff working with these children are likely to require additional tools, training and support.

ii. It is recommended that specific assessment tools for children with special educational needs be developed for use in primary school settings in Ireland. The tools should be capable of being tailored to specific SEN, be easy for teachers to administer and to score, be suitable for multiple administrations to monitor progress, and be accompanied by guidelines for using results to inform both parents and the learning plans for individual children.

iii. It is recommended that a programme of professional development be implemented to support the use of any assessment tools designed to measure the educational outcomes and progress of children with special educational needs. It should include use of assessment results for teaching and learning, as well as for communicating with parents.

iv. It is recommended that the differences in teacher ratings of children's proficiencies and their test scores are examined in future research, since both sources of information are valid. The research could include discussions with teachers on why they rate children in a particular way, since assessment instruments may have limitations that teacher observations may overcome or supplement.

7.3 Social, emotional and behavioural difficulties

It has been noted elsewhere (NCSE, 2012) that the identification and support of children with SEBD is an area in need of development. The use of the SDQ in the current study to identify SEBD again highlights this need; specifically the lack of a tool to identify and diagnose SEBD (and even outside of GUI, there is no instrument that fulfils this function in the Irish context). There is also clear evidence in this report (Chapters 3 and 5) for a detrimental, additive impact of SEBD when it co-occurs with other special educational needs on a range of outcomes.

Children with SEBD (as identified in the present study), when it occurs on its own, are less likely to receive supports than those who have been diagnosed with another SEN. That SEBD is more prevalent among families with less favourable socioeconomic profiles and home environments further underlines the need for an objective (though not necessarily error-free) instrument or set of instruments, as well as a range of appropriate and timely supports (Cooper & Jacobs, 2011). It is acknowledged, however, that the task of developing instruments for this purpose is unlikely to be straightforward, since SEBD covers a range of related but varied difficulties, as well as what may be loosely termed 'internalising' and 'externalising' features. Also, environmental factors are associated with SEBD (in a way that they are not with dyspraxia, for example, which has neurological and organic origins), and therefore, the importance of parental awareness and availability of appropriate supports to create more favourable home environments should not be understated.

Having said this, we wish to emphasise the distinction between 'cultural difference' and 'cultural deficit'. We prefer framing these findings with respect to cultural difference, which implies a bio-psychosocial approach to SEBD (Cooper & Jacobs, 2011) that includes the ecologies of both home and school, and challenges schools to adapt to differences rather than attempting to maintain existing value systems (which may be termed as 'middle class').

v. It is recommended that an instrument be developed for use by teachers to identify SEBD (social, emotional and behavioural difficulties). The instrument should be capable of distinguishing between moderate and more severe forms of SEBD, as well as internalising and externalising forms, since these may imply different types of supports.

vi. Children with 'borderline' scores on any instrument used to assess SEBD should be re-assessed at regular intervals to ensure their needs are being met within their current learning environments.

vii. Any identification of SEBD by teaching staff needs to be accompanied by appropriate allocations of educational and psychological resources and supports and strategies for fostering effective communication with parents, as well as raising awareness among parents and providing supports to families.

7.4 Clustering of children with special educational needs in schools and classrooms

In the present study, we found children with special educational needs tended to cluster in certain types of schools and classrooms. For example, the incidence of SEBD is considerably higher in DEIS Band 1 schools than in non-DEIS schools; in contrast, SLD with SEBD is more common in rural DEIS than in non-DEIS schools. We found support provision rates varied widely across the 12 SEN groups examined (though the data do not allow us to comment on the extent to which supports are adequate or appropriate). It also emerged that about one in five children with ASD tended to be in classrooms with higher than average numbers of children with special educational needs (as reported by their teachers), probably since about one in five of these children were in special schools. Unfortunately, we do not know which or how many of the children were in special classrooms in 'ordinary' schools.

It needs to be emphasised that the GUI data cannot be used to examine the issue of children with special educational needs clustering in particular types of schools, since the GUI sample was not designed to make inferences about school-level policies and practices (see Chapter 2).

viii. It is recommended that the extent to which children with special educational needs are clustered in particular schools be examined further, using data gathered specifically to address this issue, in order to determine how a 'critical mass' of these children in a school may be appropriately supported through the allocation of additional resources at school level.

7.5 Children's engagement and parental educational expectations

Some findings appear anomalous when placed side by side. For example, parents give relatively high ratings to their children's current levels of reading and mathematics performance, yet, with the exception of children with a physical or sensory disability, have very low expectations for their future educational careers. Analyses of the qualitative data (Chapter 6) revealed strengths, interests and achievements of children with special educational needs, many of them non-academic in nature. Some of these children, particularly those with SEBD, would not be known to parents as being at risk. We lack Irish data on the stability of parental educational expectations over time (though research elsewhere indicates that they may tend to decrease), and it is possible that they become more crystallised as children progress through post-primary school. Children's own expectations can be expected to become increasingly important too.

ix. It is recommended that simple and practical information on future education and training opportunities be promoted among parents, teachers, and schools, specifically targeted at adolescents and young adults with special educational needs.

A minority of children reported that they did not like school (10 per cent of children with special educational needs, and 6 per cent of children without, reported that they never liked school). Disengagement from education was also evident, to some extent, in children's patterns of attendance. Differential dislike of school subjects (particularly Irish, and to a lesser extent, mathematics) suggests that curricular factors and their interaction with SEN have at least some part to play in this pattern of findings. Some qualitative interviews suggested the structured classroom environment was not suited to some children.

Evidence suggests a link between disengagement from education and timely and appropriate provision of support (JOCES, 2010), though to adequately frame this problem, it needs to be understood in its broader context, and is related to children's relationships with peers and teachers as well (McCoy *et al* 2012; JOCES, 2010). We understand disengagement from education as being a gradual process; that is, disengagement occurs over time and is very difficult to reverse.

x. It is recommended that efforts are increased to engage children with special educational needs by building capacity in schools to address the needs, academic and otherwise, of the diverse cohort of these children, within an inclusive education framework.

xi. It is recommended that Wave II of the GUI data be examined with respect to disengagement, in particular how and why this may differ across SEN groups, in order to support engagement to the greatest extent possible, from early in children's education and also when those with special educational needs transition to post-primary school.

7.6 Variation in strengths and needs of children with special educational needs

The results presented in this report, particularly in Chapters 3 and 5, show wide variations in the outcomes of children with special educational needs. These groups also vary considerably along background characteristics, notably socioeconomic and home environments, and the kinds of schools and classes they are in. Each group has its own set of strengths and particular needs. We can be very positive about the outcomes of children with physical and sensory disabilities: this group is, generally speaking, doing as well as children without special educational needs.

xii. It is recommended that the characteristics and needs of certain sub-groups be examined further in follow-up research, specifically

- Those of children with SEBD, identified in isolation and in co-occurrence with other SEN, in particular, their well-being and home environments
- Children with multiple special educational needs; in particular, the children with SEBD and other special educational needs(s), and with physical or sensory disabilities and other SEN
- Children with ASD; in particular, their allocation to specific classrooms and schools.

7.7 Children's experience of bullying

Bullying occurs along a broad continuum; hence, it is not entirely surprising that people's interpretations of what bullying is would differ and this may account for at least some of the differences between parent and children's reports of bullying found in this study. However, the meta-analysis undertaken by McLaughlin, Byers and Vaughan (2010) found children with special educational needs and / or disabilities, particularly those with mild and / or 'hidden' disabilities, are disproportionately at risk of experiencing a continuum of bullying-related behaviours and that their vulnerability is related to characteristics both internal and external to the child.

Minton's (2010) finding that children can be both victims and perpetrators of bullying is also noteworthy in that our treatment of the GUI data (and the content of the data itself) emphasises victimisation rather than perpetration. We acknowledge the Stay Safe programme and two curricular initiatives – Social, Personal and Health Education and Civil, and Social and Political Education – but we argue, as does the Report of the Anti-Bullying Working Group to the Minister for Education and Skills (2013), that further action is required.

In the present study, we found differences in the incidences of being bullied reported by children and their parents across the SEN groups. Children with an SEBD, either occurring on its own or with another SEN, were less likely to have parents showing an awareness of their being bullied, and were also more likely to report a negative impact of bullying. These findings underline the need to enable teachers to identify and address bullying, and for schools to encourage an anti-bullying climate, as part of an overall school and classroom and behaviour management programme that tackles not just 'acting out' but also withdrawing behaviours (Frawley *et al*, 2013).

xiii. It is recommended that teachers and school management engage in professional development in the area of bullying, in particular identification of bullying that results in less visible internalising behaviours, as part of a holistic approach to behaviour management and promoting a positive classroom and school environment.

xiv. It is recommended the provision of support courses for parents that provide guidelines on identifying behaviours, both internalising and externalising, that may be symptomatic of bullying, and ways to talk to their child about these.

xv. It is recommended that Wave II data be used to research bullying further, with retrospective reference to the experiences of children aged nine, to cyber-bullying, and to both perpetration and victimisation.

7.8 Home and family environment

As noted already in Section 7.3, several of the indicators examined confirm the findings of existing research concerning the association between social and economic disadvantage and SEN, particularly as it relates to SEBD.

Worryingly, signs of lack of basic care (which some would interpret as signs of neglect) were much higher among some groups of children with special educational needs, exceeding 10 per cent in children with high SEBD, a GLD with SEBD, SLD with SEBD, ASD, and dyslexia with SEBD. Socioeconomic disadvantage and difficulties at home are not solely features of children with SEBD, however: for example, levels of social welfare dependence were significantly higher, and levels of parental education lower, in most SEN groups.

These data suggest that since the links between socioeconomic disadvantage, challenging home environments and SEN are well established, there may be scope for developing a child-level risk index or measure on the basis of these types of background information in order to prioritise and expedite resources and support where they are most needed. The empirical evidence in this report indicates that an index relying solely on more typical measures of socioeconomic background (such as parental education and occupation) would be inferior to one that also included information on home and family environment.

xvi. It is recommended that early identification of SEBD is prioritised within an overall framework of supports for SEN that takes community, family, school and individual children's characteristics into account.

xvii. It is recommended that further research be done to identify and measure those characteristics for groups of children who may be most at risk of developing special educational needs, particularly those involving SEBD, at an early stage of their development.

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Appendices

Appendix 1: The Strengths and Difficulties Questionnaire and its use in the present study

The Strengths and Difficulties Questionnaire (SDQ) is a brief screening instrument focusing on children and young people's behaviours, emotions and relationships. It seeks to measure the strengths and competencies that children and young people aged three to 17 have in addition to any difficulties they encounter. The SDQ was developed by Goodman (1997) to meet the needs of researchers, clinicians and educationalists. It reflects an updating of the widely-used Rutter parent and teacher questionnaires (Rutter, 1967; Rutter, Tizard & Whitmore, 1970). The SDQ is viewed as a user-friendly instrument. It has been translated into over 60 languages and is available free online (www.sdqinfo.com).

The questionnaire consists of 25 items that form five subscales: emotional symptoms; conduct problems; hyperactivity / inattention; peer problems; and prosocial behaviour. The first four subscales combined produce the total difficulties score, representing the overall severity and nature of psychosocial problems. The questionnaire supports a multi-informant approach: parent and teacher versions are available for three- to 16-year-olds, and there is a self-report version for young people aged 11 to 17. In addition, there is an 'impact supplement' available to complement the symptom scores. The items on this supplement covering overall distress and social impairment can be summed for both the parent and teacher versions. Where symptom and impact scores are available, a computerised algorithm has been developed to predict three groups of disorders, ranging from unlikely, possible or probable (www.sdqinfo.com).

The SDQ was included in parent and teacher questionnaires in the data collection for Wave 1 of the nine-year-old cohort to see how Irish children are faring in terms of social and emotional well-being. Parent (primary caregiver) and teacher reports were sought for all children. However, the impact supplement was not included, and therefore use of the algorithm in the analysis of the data was unavailable to the research team.

As reported in the by the GUI team (Nixon, 2012), reliability analysis for Wave 1 of the GUI data on parent and teacher-rated SDQs indicated acceptable internal consistency for the total scale scores based on teacher reports (Table A1).

Table A1. Reliability of parent-rated and teacher rated SDQ scores

SDQ sub-scale	Cronbach's Alpha	
	Parent-rated	Teacher-rated
Emotional	0.673	0.755
Conduct	0.570	0.728
Hyperactivity	0.744	0.869
Peer relationships	0.515	0.689
Total difficulties (combined four sub-scales)	0.791	0.864
Pro-social behaviour	0.634	0.814

Source: Nixon, 2012, p15.

In considering how to identify children with a social, emotional or behavioural disorder (SEBD) in this group of children, there were a number of details to consider. First, normative data and the threshold levels for at risk groups; second, the use of the SDQ subscales; and third, whether a single or multi-informant approach combining parent and teacher reports was most appropriate before finalising a model of identifying children with SEBD in this group.

Normative data

Normative data for children and young people in Great Britain was obtained in a large-scale study of children and young people undertaken in 1999 (Meltzer *et al*, 2000). According to Goodman (www.sdqinfo.com), approximately 10 per cent of community sample scores are likely to be in the 'abnormal' range, and a further 10 per cent of scores should form the basis of the 'borderline' group. Arising from the application of these bands to the normative sample, a set of thresholds to define 'caseness' among the symptom scores of informant-rated questionnaires was developed and is shown in Table A2.

Table A2. Interpretation of symptom scores and defining 'caseness' from symptom scores

Source	Normal	Borderline	Abnormal
Parent completed	0-13	14-16	17-40
Teacher completed	0-11	12-15	16-40

Source: www.sdqinfo.com

Country-level normative data for the SDQ is available for children in nine countries (Australia, Britain, Denmark, Finland, Italy, Germany, Spain, Sweden, and the USA) (www.sdqinfo.com). However, there is no normative data for Ireland. The research team were therefore left with two options: to apply 10 per cent thresholds to the sample for abnormal and borderline ranges as done by Banks and McCoy (2011) or to apply the set of thresholds using normative data from another country.

There is a rationale for applying 10 per cent thresholds to the sample as per previous Irish studies. However, the GUI study was not developed to provide normative data for the SDQ in Ireland. Furthermore, the weights don't correct for differential response rates by SDQ or SEBD group, so our preferred option was to apply norms derived from a culturally similar study, designed specifically to provide these norms.

There are nonetheless reservations in applying normative data from another country to the Irish context, cultural distinctions and differences the socioeconomic context may affect the mean scores for Irish children on the SDQ. As noted by Goodman, the proportions within the borderline and abnormal bands vary by country, age and gender (www.sdqinfo.com). In a study of Finnish children (Koskelainen *et al*, 2001), for example, the cut-off points for SDQ sub-scales were one or two points lower than in reports of UK studies. However, due to relative cultural and socioeconomic similarities between UK and Ireland, the research team decided that the thresholds developed for Great Britain could be applied to this sample.

Use of subscales

Goodman, Lamping and Ploubidis (2010) suggest in general population samples, it may be better to use an alternative set of subscales; 'internalising problems' (emotional symptoms & peer symptoms; 10 items), 'externalising problems' (conduct symptoms and hyperactivity / inattention symptoms; ten items) and the prosocial scale (five items). However, since the research team decided to use the total difficulties score to identify children with an SEBD for a classification scheme of children with a special educational need, the use of a particular group of subscales was not necessary.

A single- or multi-informant approach

In deciding whether to adopt a single- or multi-informant approach in identifying children with SEBD for a SEN classification scheme, the strengths of parent and teacher questionnaires were considered. Previous research (e.g. Goodman *et al*, 2000; Becker *et al*, 2004) on the predictive validity of the SDQ emphasises the merits of adopting a multi-informant approach and in particular the combination of parent and teacher reports. Therefore, the research team decided that a multi-informant approach to identifying children with an SEBD would be a valid method and consistent with previous research.

However, given that impact scores were not available in the GUI data, a decision had to be made in how best to utilise parent and teacher reports in identifying children with SEBD for a classification scheme for SEN.

Possible options included the combination of the raw scores, or the combination classified scores. In cases or mismatches, one data source would need to take precedence. Given the experience and background of teachers working with children on a daily basis in an educational environment and with the ability to compare the strengths and difficulties of each child with a group of their peers, the research team decided that teacher reports would form the primary source of SDQ scores for this group of children. Existing research supports the choice of teachers as the primary source, at least in the choice between parent and teacher reports in a single informant approach. Goodman *et al* (2000) reported that when comparing the sensitivities of the parent and teacher reports, the teacher report was better at predicting externalising disorders while, on the other hand, the parent report was better at predicting internalising disorders.

Final classification

Teacher reports formed the initial basis of the identification of children with SEBD for the classification of SEN. Parent reports were used as supplementary information for the identification of children with SEBD for the classification scheme. Table A3 shows the final scheme and how teacher and parent reports are combined to provide a final classification of children with SEBD in the proposed SEN classification scheme.

Table A3. Classification of children into low or no risk, medium risk and high risk SEBD groups based on teacher / parent reports on the SDQ

Teacher report	Parent report	Final classification
Normal	Normal	Normal (low or no risk)
Borderline	Borderline	Borderline (medium risk)
Abnormal	Abnormal	Abnormal (high risk)
Normal	Borderline	Normal (low or no risk)
Borderline	Normal	Borderline (medium risk)
Abnormal	Normal	Abnormal (high risk)
Normal	Abnormal	Borderline (medium risk)
Borderline	Abnormal	Borderline (medium risk)
Abnormal	Borderline	Abnormal (high risk)

As can be seen in Table A3, where a child has a higher classification on the teacher report (e.g. a teacher has rated a child as having a 'borderline' score, while a parent has rated the child as having 'low or no risk'), that child retains the teacher's higher risk classification.

Where children were reported as in the ‘abnormal’ range on the parent reports (and teacher reports were either ‘missing’, ‘normal’ or ‘borderline’) children were classified as ‘borderline’. Where children were in the ‘borderline’ range on parent reports (and teacher reports were ‘normal’) children were classified as ‘normal’.

This system of identifying children with SEBD as part of an overall attempt to classify children with special educational needs in the GUI Wave 1 data may under-report children with internalised disorders in borderline and high-risk categories. This is due to the different predictive validity of parent and teacher reports (Goodman *et al*, 2000).