

The Transition to Primary Education

Insights from the *Growing Up in Ireland Study*

Emer Smyth



THE TRANSITION TO PRIMARY EDUCATION: INSIGHTS FROM THE *GROWING UP IN IRELAND* STUDY

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Abbreviations

AIM	Access and Inclusion Model
BAS	British Ability Scale
CSO	Central Statistics Office
DEIS	Delivering Equality of Opportunity in Schools
ECCE	Early Childhood Care and Education
EPPE	Effective Preschool and Primary Education
GUI	<i>Growing Up in Ireland</i>
NCCA	National Council for Curriculum and Assessment
NSAI	National Síolta Aistear Initiative
RMF	Researcher Micro File
SDQ	Strengths and Difficulties Questionnaire
SEN	Special educational need

EXECUTIVE SUMMARY

BACKGROUND TO THE STUDY

There has been considerable change in the early years policy landscape in recent years, with the expansion of funded preschool provision, the introduction of *Aistear: The Early Childhood Curriculum Framework*, work on facilitating the transition from preschool to primary school and the ongoing revision of the primary curriculum. It is therefore timely to look at children's experiences adjusting to primary education and the dispositions and skills they bring with them to the school setting. The *Growing Up in Ireland* (GUI) study provides new information on this crucial transition phase, placing experiences and outcomes in the context of child and family factors from the first year of life. The report draws on information on over 9,000 five-year-old children and their families, as well as on the perspectives of their classroom teachers and school principals. The study, funded by the National Council for Curriculum and Assessment (NCCA), addresses the following key questions:

- What factors influence age at starting school? How do parents go about helping prepare their children for starting school?
- What kinds of learning experiences are offered to children in the early years of primary education? Does this differ across schools and classrooms?
- How do children settle into primary school? Do some groups of children experience greater difficulties adjusting to the new setting?
- What cognitive and non-cognitive skills and capacities do children have at this key transition phase?

This executive summary presents an overview of the main findings and outlines their implications for policy development.

PREPARING FOR SCHOOL START

The cohort of children in the GUI study was the first to avail of a funded preschool place provided through the Early Childhood Care and Education (ECCE) scheme, with almost all families taking part in the scheme. Children varied in their prior experience of non-parental care, with just over one-quarter in centre-based settings at the age of three, that is, before beginning the ECCE scheme. Children differed in their cognitive development before starting school, with marked variation by the socio-economic circumstances of their family and by whether the child had a disability/special educational need (SEN) or not.

The age at starting school has become older over time, with this increase being more marked after the introduction of the ECCE scheme. Children tend to be older

on school entry if they come from professional/managerial and highly educated families. Children with a disability, especially those with socio-emotional or learning difficulties, also tend to start school later than their peers. Mothers are found to engage in a range of activities to support their child's school entry, including talking to their child about school, visiting the school and practising reading, writing or numbers with the child.

Over time, there has been a significant shift in research and policy discourse from focusing on children being 'school ready' towards looking at the interplay between the family, school and child in facilitating the transition process (see O'Kane, 2016, for a review of the relevant literature). The current study indicates that teachers, in assessing the skills and dispositions they expect a child to possess on starting school, tend to emphasise practical skills, such as a child managing their personal care, and interpersonal or socio-emotional skills, such as being able to communicate their needs, taking turns and not being disruptive. Pre-academic skills are seen as a less important prerequisite by teachers. Teachers generally receive information on whether the child coming into their class has a SEN, on the child's family circumstances and on whether the child has attended preschool. However, teachers reported receiving little information on the skills developed in preschool and the child's individual strengths or challenges. This lack of information is likely to constrain continuity in learning experiences for children and current policy work by the NCCA is focusing on the development of templates that would help facilitate the transfer of information between preschool and primary school settings (NCCA, 2018a).

THE EARLY YEARS CLASSROOM

At the time of the teacher survey, the majority (72 per cent) of the five-year-olds were in senior infant classes, with the remainder in junior infants classes.¹ Teachers were asked about the kinds of approaches they used in their classroom. The use of whole-class teaching and individual work was the most common pattern at junior and senior infant levels. Play-based activities are a common feature of early years classrooms, but creative and pretend play are less frequently used in senior infants than in junior infants classes. Junior infants groups in multi-grade classes (that is, children from different levels in the same class) tend to experience less play-based and hands-on activities than those in single-grade settings, presumably because the teacher is also managing the activities of older children. Teachers in urban DEIS (Delivering Equality of Opportunity in Schools) schools, especially Urban Band 1 schools, appear to place greater emphasis on some literacy and numeracy activities as well as on play-based and hands-on activities than teachers in other schools.

¹ Only a tiny number of children had not started school by the autumn of 2013.

THE SETTLING-IN PROCESS

Mothers reported that the vast majority of five-year-olds were positive about school, looking forward to going and saying good things about school. Only a small proportion (4–5 per cent) of children frequently complain or are upset about going to school, though one-fifth experience occasional difficulties. Transition difficulties are more common among boys, those with disabilities, those with socio-emotional difficulties, those from lone parent families and those from larger families. Ease of transition is enhanced by the child having a positive relationship with their mother and having experienced more home learning activities (such as being read to and creative play) in their preschool years. Almost all the study children had experienced centre-based care through the ECCE scheme so it is not possible to assess whether taking part in the scheme facilitates the transition to primary school. There is no evidence that experience of non-parental care prior to taking part in ECCE makes a difference to the settling-in process. Children who attend smaller schools (<100 pupils) settle in more quickly but no other differences by school type are evident.

CHILDREN'S DISPOSITIONS AND SKILLS AT SCHOOL ENTRY

A range of information was collected on children's dispositions and skills at school entry, including a vocabulary test and teacher ratings of the child's outcomes along a number of dimensions. Clear gender differences are apparent, with boys achieving lower test scores and being seen as having more negative dispositions to school, greater socio-emotional difficulties and poorer literacy-related skills. Children's outcomes at this early stage vary significantly by social background, with children from more disadvantaged backgrounds (in terms of social class or parental education) having more negative attitudes, more socio-emotional difficulties and poorer literacy- and numeracy-related skills. Reflecting differences in social profile, children attending urban DEIS schools have lower vocabulary test scores and are seen as having less positive dispositions and pre-academic skills. There is some evidence, however, that this gap is somewhat less for the senior infants group, suggesting that school-based learning plays an important role in providing disadvantaged children with the social and pre-academic skills they may not have possessed on school entry. The largest gap in early outcomes is evident in relation to children with disabilities or SEN.

The study collected new information on the quality of the teacher's relationship with the child, as reported by the teacher. Teachers tend to report less close and more conflictual relationships with boys, children from disadvantaged backgrounds and children with disabilities/SEN.

IMPLICATIONS FOR POLICY

Recent policy initiatives have emphasised the importance of ensuring a continuity of learning experience over the transition from preschool to primary school (NCCA, 2018a). However, the study findings point to a lack of communication between early years providers and primary teachers about the kinds of skills and dispositions children have acquired before starting school. Work is currently underway by the NCCA on developing transfer templates to help ensure an exchange of information between providers and hence greater continuity of experience for young children. However, it appears evident that the transfer of information needs to be part of broader efforts to facilitate the transition into primary education (NCCA, 2018a). The fact that adjustment difficulties are more common among certain groups of children (especially boys and those with disabilities) provides an important evidence base for school principals and teachers in developing supports for children over the transition process.

The findings point to the important role of parents in fostering a learning environment at home, with children who have been read to frequently by, and who have engaged in creative and educational activities with, their parents (or other family members) settling more quickly into primary school. Parents tend to engage in a range of activities, such as visiting the school and talking about school, to help their children prepare for starting school. The high level of communication between parents and teachers at this stage of the primary career offers the potential for schools to further involve parents in supporting their children's learning.

The kinds of learning opportunities offered to children in the early years of primary education vary by the type of school and classroom they attend. Some of this variation appears to reflect a targeting of additional support towards certain groups of children, especially those in schools with a concentration of disadvantage. However, logistical constraints also play a role, with challenges for teachers of multi-grade and/or larger classes in using more play-based and hands-on activities. This pattern points to the importance of differentiation in learning, so that all children have the opportunity to experience play-based and hands-on activities. The findings also point to greater potential to provide children in senior infants with more play-based learning, in keeping with the approach experienced at junior infants level.

The findings reveal a social gradient in the cognitive and non-cognitive skills and capacities children possess before and on school entry. This social gradient undoubtedly reflects broader social inequalities in the cultural, financial and social resources possessed by families. However, it is important to note the way in which children from more disadvantaged backgrounds have poorer quality relationships with their teachers, even at this early stage. The findings indicate significant challenges to the full inclusion of children with disabilities/SEN, with this group of

children experiencing a more difficult transition and having poorer pre-academic skills and socio-emotional wellbeing. Again, poorer quality relationships with teachers are evident for this group. The study found that differences in the teacher–student relationship vary by gender, social background and having a SEN, pointing to the importance of emphasising a positive school and classroom climate and supporting teachers to build good relationships with all children. Future waves of the GUI study will be used to examine whether this early differentiation in children’s skills has longer-term implications for their experiences and outcomes as they move through the education system.

CHAPTER 1

Introduction

1.1 BACKGROUND TO THE STUDY

There has been very little research in Ireland about the experiences and outcomes of children in the early years of primary education. The third wave of the infant cohort of the *Growing Up in Ireland* (GUI) study, conducted just after the children's fifth birthday, presents an opportunity to address this gap in knowledge by providing new information on this key transition phase, incorporating the perspectives of parents, teachers and school principals. Because of the young age of the children, survey information is collected about rather than directly from the children, although children took part in tests of cognitive development. Later waves of the survey place greater emphasis on directly capturing children's own experiences.

Placing transition experiences in the context of family and child characteristics from the first year of life provides rich insights into the factors shaping integration into primary education. Such research is particularly timely in a context where there has been a sea-change in the nature of early years education, alongside ongoing revision of the primary curriculum. This study was commissioned by the National Council of Curriculum and Assessment (NCCA) to inform its work in early childhood and primary education. It addresses the following key questions:

- What factors influence age at starting school? How do parents go about helping prepare their children for starting school?
- What kinds of learning experiences are offered to children in the early years of primary education? Does this differ across schools and classrooms?
- How do children settle into primary school? Do some groups of children experience greater difficulties adjusting to the new setting?
- What cognitive and non-cognitive skills and capacities do children have at this key transition phase?

This chapter begins by placing the study in the context of recent policy developments in early years education and of previous research on the transition to primary school. It then goes on to describe the GUI study and

the methodology used in this report. The chapter concludes with a brief outline of the report.

1.2 THE POLICY CONTEXT

Historically, children in Ireland have had a low level of participation in centre-based care and education, with provision largely operating through private crèches and childminders and a small number of community-based providers serving more socio-economically disadvantaged populations. Recent years have seen a sea-change in the policy landscape. The Early Childhood Care and Education (ECCE) scheme was introduced in January 2010 to provide children between three years three months and four years six months with access to a funded preschool year (15 hours per week) of programme-based activities. The rationale for the scheme was explicitly couched in terms of improving school readiness among young children: ‘Children who avail of pre-school are more likely to be ready for school and a formal learning and social environment’ (Department of Children and Youth Affairs, 2009). When first introduced, children qualified for one school year, with an extension in coverage after September 2016. From September 2018, children will be able to start the scheme from two years and eight months old until the transfer to primary school. In addition, Budget 2018 saw the introduction of the Affordable Childcare Scheme, which provides a non-means-tested subsidy to contribute towards childcare costs before participation in the ECCE scheme, with means-tested supports to cover provision for children up to 15 years of age.

When the ECCE scheme was introduced, it was stipulated that children assessed as having additional needs could avail of the scheme over a two-year period on a pro rata basis. The issue of inclusion for children with special needs received increasing policy attention in the years that followed. The Access and Inclusion Model (AIM) was introduced in 2016 to ensure that children with disabilities could access the ECCE scheme. It includes a suite of measures and supports, including an inclusion charter to which service providers sign up, the provision of expert advice and support, therapeutic interventions and additional assistance in the preschool room.

In tandem with the expansion of funded provision, there has been increasing emphasis on improving the quality of early years provision. *Síolta*, the National Quality Framework for Early Childhood Education, was published in 2006. It was designed to support quality improvement across all ECCE settings for children from birth to six years of age. The *Síolta* manual, updated in 2017 (Department of Education and Skills, 2017), is

designed to support providers in engaging in ongoing quality improvement and planning. Its key principles centre on the value of early childhood, a children-first philosophy, the importance of parental involvement, teamwork, a holistic approach to pedagogy and the centrality of play in children's development. On the basis of these principles, the manual specifies a set of standards that providers can use to reflect on their practice. Quality measures have also involved the specification of a minimum qualification level for preschool leaders. The Tusla Early Years Inspectorate has responsibility for the regulatory inspection of early childhood settings, while inspectors from the Department of Education and Skills conduct education-focused inspections of ECCE provision.

A related development has been an increasing focus on the nature, content and pedagogy of early years learning. Aistear, an early years curriculum framework covering children from birth to six years of age, was introduced by the NCCA in 2009. Aistear has four themes – wellbeing, identity and belonging, communicating, and exploring and thinking – and presents examples of good practice in early years education.² It is innovative in that it is designed to cover the full range of settings, from the child's own home to preschool and primary school provision (NCCA, 2009a). The framework places a strong emphasis on the importance of play in children's learning and development (Kernan, 2007) as well on the quality of relationships and interactions with adults and other children and the importance of a language-rich environment (NCCA, 2009b).

Aistear and Síolta are viewed as complementary, with Síolta covering all aspects of early years provision while Aistear focuses on early learning and development (NCCA, 2009c). Aistear and the primary curriculum are also seen as complementary in terms of their key principles (NCCA, 2009a), although some commentators have highlighted important differences between the two approaches (O'Connor and Angus, 2014; Gray and Ryan, 2016). An online practice guide has been developed to provide a range of resources for practitioners in using Aistear and Síolta (www.aistearsiolta.ie). In addition, the National Síolta Aistear Initiative (NSAI) has been established to support the coordinated rollout of the two frameworks.

Work is currently underway at the NCCA on the development of templates to facilitate the exchange of information between early years providers and primary schools, hence enhancing the continuity of experience across the transition process (NCCA, 2018a). Pilot work with a network of

² The philosophy underpinning Aistear is discussed in greater detail in French (2009).

preschools and primary schools highlighted the potential value of this approach but indicated that these templates need to be underpinned by broader work on developing positive relationships among all involved in the transition process (NCCA, 2018a). The primary curriculum is itself changing with the recent introduction of a new language curriculum and, at the time of writing, work is underway on a new mathematics curriculum, as well as broader efforts to review and redevelop the full primary curriculum.

These policy changes serve as an important backdrop to interpreting the findings of this study. The children in the GUI infant cohort were the first cohort to avail of the ECCE scheme so their experience of early years education was very different to that of earlier cohorts of children. They are likely to have been affected by at least some of the measures designed to improve the quality of provision. However, the survey of five-year-olds was conducted in 2013–2014, so the children will not have experienced any subsequent changes to the primary curriculum (see Section 1.4 on the timing of the study).

1.3 RESEARCH ON THE TRANSITION TO PRIMARY SCHOOL

1.3.1 International research

There has been much less research on the transition into primary education than on the transition from primary to secondary level. Nonetheless, a number of studies point to factors that facilitate children settling into the new context (for a useful overview of Irish and international studies, see O’Kane, 2016). As with the transition to secondary education, there tends to be a discontinuity in structures and experiences for children in terms of the physical environment (such as the size of the grouping), the complexity of the social setting (with school involving more and different children and adults), the level of individual attention they receive and often a different approach to learning (Pianta, 2004; Dockett and Perry, 2007). Pianta (2004) characterises the transition as involving increasing demands on the child but decreasing support for them.

Over time, there has been a significant shift in research and policy discourse from focusing on children being ‘school ready’ towards looking at the interplay between the family, school and child in facilitating the transition process (O’Kane, 2016). School readiness was often seen in terms of children having the requisite language skills as well as the socio-emotional or behavioural disposition to engage with formal learning

(Booth and Crouter, 2008). However, increasingly this concept has been subject to critique, with commentators highlighting 'readiness' as more accurately relating to the 'fit' between the child and the context (classroom or school) rather than as involving a lack or deficit within the child (Pianta and Cox, 1999; Vernon-Feagans et al., 2008). Empirical studies show that most children settle into the new setting relatively quickly (Peters, 2010; Bradshaw et al., 2012). However, some groups of children, namely boys and those from more socio-economically disadvantaged families, are found to experience greater adjustment difficulties (Farkas and Hibel, 2008; Bradshaw et al., 2012). Having poorer communication skills may act as a barrier to making friends and building relationships with adults (Girard et al., 2017). Parenting practices and parental wellbeing are found to operate as important protective factors in enhancing children's socio-emotional adjustment during this period (Hartas, 2011).

Some commentators have argued that children's voice has been neglected in studies of early years transitions (Einarsdottir, 2007), though a growing body of studies tap into children's own perspectives. A number of common themes emerge from these studies, in particular, children's mixture of excitement and anxiety about the transition, less focus on play-based activities in school than in preschool (a contrast between 'work' and 'play'), a more structured day and different relationships with key adults (Broström, 2000, 2003; Pramling and Willams-Granelid, 1993; Einarsdottir, 2003; Corsaro and Molinari, 2000).

The effect of type of preschool care on child outcomes has been the subject of a good deal of controversy, with a lack of consensus emerging from study findings (for a useful summary of the literature, see Russell et al., 2016). However, firmer evidence exists on the way in which a high quality preschool experience can facilitate the development of cognitive and non-cognitive (social and emotional) skills and hence an easier adjustment to primary education (Corsaro and Molinari, 2000; Augustine et al., 2009). The Effective Preschool and Primary Education (EPPE) study in England highlighted the way in which the quality of the preschool, in terms of staff qualifications (including having trained teachers on staff), staff retention, leadership skills and parental involvement, enhanced intellectual development, independence, concentration and sociability (Sylva et al., 2010). These effects persisted through the early years of primary education (Sammons, 2010). In keeping with American research (see, for example, Levin, 2009), the effects of high quality preschool were greater for children from socio-economically disadvantaged backgrounds (Sammons, 2010). Information exchange between preschool and school

staff has also been found to ease the transition process (Corsaro and Molinari, 2000; O’Kane, 2016).

More frequently, research has emphasised the way in which the skills and dispositions young children have on school entry reflects the socio-economic circumstances of their families (Lee and Burkam, 2002; Bradbury et al., 2012). Thus, children whose parents hold professional jobs and have high levels of education tend to have better language skills and fewer socio-emotional difficulties on school entry (Hansen et al., 2010; Sylva et al., 2010). Many studies have shown that these patterns reflect differences in the home learning environment, that is, the kinds of informal learning opportunities offered to children, such as being read to and engaging in creative play (Sammons, 2010). However, other studies have shown that, even accounting for differences in the home learning environment, the cultural, social and economic resources of the family have a significant and direct influence on child cognitive and non-cognitive skills at this stage (Sullivan et al., 2013; Hartas, 2015). Furthermore, empirical studies have highlighted the way in which these early inequalities have longer-term consequences into secondary education and beyond (Duncan et al., 2007; Ermisch et al., 2012; Chowdry and McBride, 2017).

1.3.2 Irish research

Existing research on children’s experiences of primary school has largely focused on older children rather than those in the infant classes. Drawing on GUI data, research points to the ways in which nine-year-old children’s experiences of more active forms of learning and the time they spend on different subject areas vary significantly across schools and classrooms (McCoy et al., 2012). Girls, those attending fee-paying schools, those attending *gaelscoileanna* (Irish-medium schools) and those in non-disadvantaged schools are more likely to experience active learning in their classroom than boys, those in English-medium schools and those in disadvantaged (DEIS) schools.³ Nine-year-olds are found to have high levels of engagement in school, liking school, looking forward to coming to school and liking their teacher. However, even at this stage, higher levels of disengagement are found among boys and those with special educational needs (SEN) (McCoy et al., 2012; McCoy et al., 2012). Children’s wellbeing is found to vary significantly across schools and, to some extent, across classrooms within schools. A child’s social relationship with their teacher emerges as an important influence on child self-image, with more negative self-evaluations among students who ‘never like’ their teacher and who

³ DEIS (Delivering Equality of Opportunity in Schools) is part of the Department of Education and Skills’ strategy to address educational disadvantage.

are reported to have discipline problems. Negative relations with peers in the form of bullying are associated with poorer self-image (Smyth, 2015).

The absence of longitudinal studies of very young children in Ireland has, until now, limited the potential to explore the transition into primary education. However, the growing body of research on early years provision provides a useful context for the current study.

Previous analyses of the GUI data indicate relatively little direct impact of the type of care setting experienced at the age of three on cognitive skills (measured in terms of vocabulary test scores) and non-cognitive outcomes (assessed in terms of socio-emotional difficulties and preschool behaviour) at the age of five (McGinnity et al., 2015; Russell et al., 2016). However, the home learning environment in the preschool years is found to have a significant effect on children's vocabulary skills at the age of five (McGinnity et al., 2017). The only study to date that has compared child development before and after taking part in the ECCE scheme indicates that a significant skills gap by social class background remains unchanged, or even widens, over the course of that year (McKeown et al., 2015). An experimental study, the Preparing for Life initiative, involved the provision of intensive supports from pregnancy onwards for parents and children in a disadvantaged area of Dublin. The study evaluation indicated that, compared to similar children who had not received such supports, children in the study group saw a significant improvement in their cognitive development, communication and language skills and a reduction in their levels of hyperactivity and inattention at school entry (PFL Evaluation Team, 2016).

A recent in-depth mixed methods study (Ring et al., 2016) provided insights into perceptions of school readiness among early years educators and primary school teachers. As in earlier Irish studies (see, for example, Hayes et al., 1997; O'Kane, 2007), social and emotional skills were seen as the most important by both groups, though early years practitioners tended to place greater emphasis on the importance of children's dispositions (that is, attitudes) than primary teachers. Both groups also emphasised the importance of English language communication skills, though primary teachers placed greater value on fluency in the child's mother tongue (where it was not English). Preschool staff and parents were more likely to emphasise the importance of the child having pre-academic skills (for example, recognising numbers or letters) than were primary teachers. The study found that early years staff were actively engaged in introducing the idea of 'big school' to the children and served as an important source of advice to parents on when children might best

start school. However, considerable variability was reported in the nature of communication and contact between preschools and primary schools, with a noteworthy lack of exchange of information on the implementation of Aistear and Síolta.

From the child's perspective, Ring et al.'s study (2016) highlighted the way children viewed the primary school as 'big' and busy and how they emphasised the importance of making friends in the new setting. Their views of what primary school would be like were shaped by their parents and by other children, especially older siblings. A small-scale study of children in rural Ireland pointed to some difficulties in adapting to fewer play opportunities over the transition (McGettigan and Gray, 2012). There has not been a systematic evaluation to date of the implementation of Aistear. However, a number of small-scale studies provide useful insights, with one study pointing to the continued dominance of didactic methods in early years primary classrooms, with teachers pointing to large class sizes, among other factors, as constraints on implementing a play-based curriculum (Gray and Ryan, 2016). Another study (Fallon and O'Sullivan, 2015) highlights the expectations of parents as an additional barrier to adopting a play-based curriculum.

This study seeks to build upon this existing research by taking a longitudinal perspective that traces the influence of family and child factors, from the first year of life, on children's experiences of the transition process to primary school.

1.4 METHODOLOGY

1.4.1 Data

The GUI study was commissioned by the Department of Health and Children through the (then) Office of the Minister for Children, in association with the (then) Department of Social Protection and the Central Statistics Office. The study has been carried out by a consortium of researchers led by the Economic and Social Research Institute (ESRI) and Trinity College Dublin (TCD). The study focuses on two cohorts of children: a nine-month (infant) cohort and a nine-year-old (child) cohort. Analyses presented in this report focus on the infant cohort.

The infant cohort survey was based on a nationally representative sample of 11,134 children drawn from the Child Benefit register. Parents were first surveyed when the child was nine months old. This report mainly draws on the second and third waves of this survey, conducted when the child was

three years of age (2010–2011) and five years of age (2013). A total of 9,001 families were surveyed in Wave 3 (when the child was five years of age). At both waves, detailed interviews were conducted with the primary caregiver (who was the mother in over 99 per cent of cases) and the secondary caregiver, if resident in the household.⁴ Physical measurements were taken of the child and children completed cognitive tests at both waves. For Wave 3, home visits occurred between March and September 2013. Because of differences in month of birth and age starting school (see Chapter 2), over one-quarter (28 per cent) of children had not started school by the time of the home visit.

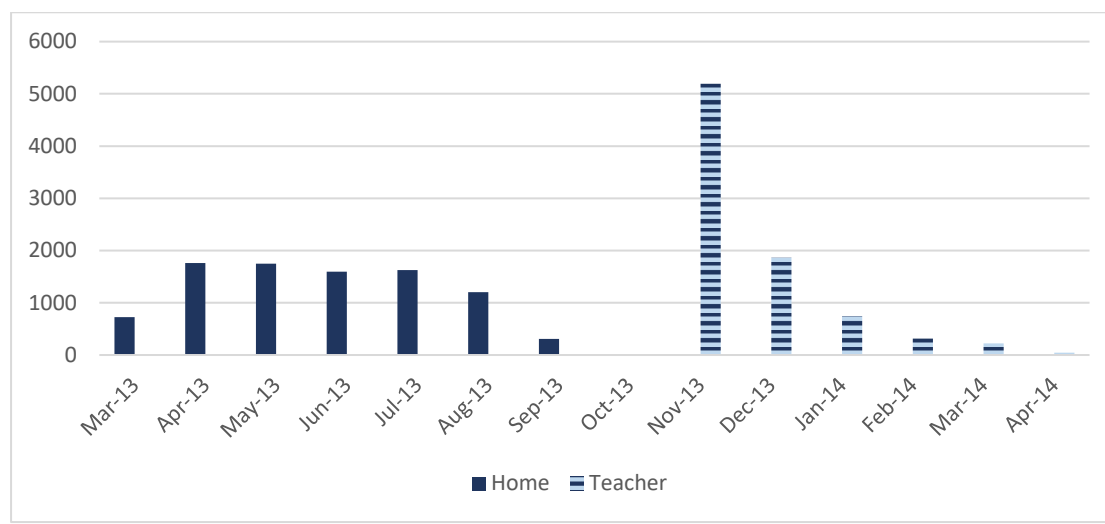
Later in 2013, questionnaires were sent to the child's principal and classroom teacher to gather information on the characteristics of their school and class, as well as on teacher perceptions of the study child. All but a handful of the children had started school by this time-point. The survey covers both children who had started school in September 2012, before the home visit, and children who newly joined junior infants in September 2013. The study children were therefore spread over two class levels – junior and senior infant classes.

Two features of the fieldwork timing are worth bearing in mind in examining the study findings. Firstly, GUI is an age-based rather than a stage-based cohort; children are surveyed at five years of age rather than at the exact time of entering primary education. As a result, reflecting month of birth and parental decisions about when to send their child to school, over one-quarter of the children had not started school at the time of the home-based visit; for this reason, their mothers could not answer questions about the settling-in process (though they were asked about preparation for starting school). The verbal skills test was administered during the home visit and so reflected the skills of children at different stages - those who had not experienced any formal primary schooling as well as those who had already been in school for a year. The verbal skills of the latter group are likely to have been influenced by their exposure to school-based learning. Secondly, the timing of the school-based data collection means that teachers are reporting on children in junior and senior infant classes, who might be expected to differ in their skill development as a result of their class level. Furthermore, the separation in time between maternal and teacher accounts might reflect that time lag

⁴ Because the vast majority of primary caregivers were mothers, primary caregivers are referred to as 'mothers' in the remainder of the report.

as well as differences in perceptions of the child's outcomes between the two groups.⁵ The analyses presented in the remainder of the report take account of different timing in school start by conducting separate analyses for junior and senior infant groups, where appropriate.

FIGURE 1.1 TIMING OF HOME-BASED AND SCHOOL-BASED FIELDWORK



Source: Growing Up in Ireland study.

1.4.2 Measures used

The study adopts a multidimensional approach to assessing children's experiences and outcomes over the transition to primary education. Children's scores on the naming vocabulary subscale of the British Ability Scale (BAS), which was administered during the home visit, are used as a measure of verbal (cognitive) skills. The ease of settling into primary school is based on reports by the child's mother on a range of dimensions capturing positive aspects (such as looking forward to going to school) and negative aspects (such as being upset or reluctant to go to school). The GUI study collected new information on the nature of the relationship between the child and teacher along the dimensions of warmth and conflict, as reported by the teacher. A number of the other measures of adjustment and skill development are based on teacher ratings of the study child. These include the child's dispositions and attitudes to school (such as being interested and excited to learn), language for communication and thinking (such as talking and listening confidently), linking sounds and letters (including hearing and saying vowel sounds), reading (including

⁵ Month of the home visit and month of the completion of the teacher survey are not included in the dataset so the potential implications of the timing cannot be directly tested.

understanding story) and numbers (including counting). The items used to collect this information are a subset of those collected as a measure of child achievement in the UK Millennium Cohort Study.⁶ In addition, the child's socio-emotional wellbeing is assessed on the basis of teacher reports, using the widely used Strengths and Difficulties Questionnaire (SDQ). More detailed descriptions of these outcome measures are given in Chapter 4.

GUI data provide very rich background information on the socio-economic circumstances of the children and their families, allowing for an analysis of the factors influencing the transition to primary education. The individual and family variables used for analysis throughout this report include the following.

- **Family social class:** A social class classification, based on the Irish Census of Population measure, was assigned to both mother and father (where the latter was resident) based on their respective occupations. In line with standard procedures, a dominance approach (see Erikson, 1984) was used, whereby in two-parent families, in which both partners were economically active outside the home, the family's social class group was assigned on the basis of the higher of the two. This approach provides a more accurate picture of the social position and resources of the family as a whole. A six-fold classification of family social class is used: professional and managerial, for shorthand often termed 'middle-class' in the text; non-manual, skilled manual and semi-skilled/unskilled manual (for shorthand, termed 'working-class' in the text); and non-employed.
- **Mother's education:** The groups are lower secondary or less, Leaving Certificate, post-secondary, tertiary degree and postgraduate degree. Mother's education is commonly used in the literature as it has been found to be more highly predictive of child outcomes (Stevenson and Baker, 1987).
- **Family structure:** A two-fold classification of family structure is used – one-parent and two-parent.
- **Number of older siblings:** This reflects the family size into which children are born; having older children may also mean that parents are more familiar with the school system.

⁶ In England, the measure was based on the Foundation Stage Profile completed for all children at the end of the first year of primary education by their teacher. In Wales, Scotland and Northern Ireland, these measures were replicated using a questionnaire to teachers (Johnson, 2008).

- **Immigrant status:** A family is defined as being an immigrant family if both parents were born outside Ireland (or the sole parent if in a one-parent family).
- **Disability/SEN:** This is based on the mother's report when the child was five years of age of whether the child had one or more of a list of specified disabilities or SEN.⁷
- **Location:** This relates to whether the family is living in an urban or rural area.

The GUI data also capture a number of different aspects of preschool experiences at home and in other early childhood settings that might be expected to influence skill development and the adjustment to primary school. These include the following.

- **The quality of the parent-child relationship:** This was measured when the child was three years of age using two subscales of the Pianta Parent-Child Relationship Scale (Short Form) (Pianta, 1992), which capture positive aspects (closeness) and level of conflict.
- **The home learning environment:** This involved capturing the number of days in an average week in which someone at home engages in a range of learning-related activities with the child (including reading, learning songs and painting), based on the measure used in the EPPE study (Sylva et al., 2010); and the number of children's books in the home.
- **Measures of early cognitive development:** This was captured by the Naming Vocabulary and Picture Similarities scales from the BAS (Elliott et al., 1996), which were administered by the interviewers when the child was three years of age, and again at five years of age.
- **Socio-emotional wellbeing:** This was assessed using the SDQ (Goodman, 1997). The questionnaire, completed by the mother (when the child was three) and the mother and teacher (when the child was five), includes four scales, which capture socio-emotional difficulties (emotional symptoms, conduct problems, hyperactivity/inattention and peer relationship problems). A positive measure of prosocial behaviour, that is, positive interaction with others, was also captured using the SDQ.

⁷ Information collected at five years of age is used, as some conditions may have been identified since the previous wave of the survey, at three years of age. It should be noted that some specific learning difficulties (such as dyslexia) may not yet have been identified because of the child's age.

- **The main type of care setting at the age of three:** This was reported by the mother, distinguishing between being cared for by parents only, relatives, non-relatives, and in centre-based settings. Whether the child had taken part in the ECCE scheme was also asked, at five years of age.
- **Age at starting school:** This was reported by the mother.

In order to examine potential variation in experiences across different settings, a range of school and teacher (classroom) characteristics were also taken into account. School characteristics included the DEIS status of the school, the gender mix of the school and school size.⁸ Classroom characteristics included whether the class was single-grade or multi-grade (that is, included children from different levels in the same class, like junior and senior infants), class size, teacher gender and teacher experience. It should be noted that these factors are taken into account in order to examine descriptive differences and cannot be used to infer teacher 'effects', since the timing of the school-based fieldwork means that most children will already have completed junior infants, potentially with a different teacher than they have in senior infants.

1.4.3 Analytical approach and treatment of missing data

Analyses presented in this report are based on the GUI detailed Researcher Microdata Files. The data for all waves have been re-weighted (statistically adjusted) to ensure that the information is representative of the population of children in Ireland.

⁸ The Delivering Equality of Opportunity in Irish Schools (DEIS) scheme targets additional funding towards schools serving more disadvantaged populations. At the time of the survey, these schools were selected on the basis of principals' reports of the numbers of students with particular characteristics (including living in social housing, and being from an unemployed family). At primary level, there are three types of schools: DEIS Urban Band 1 (the most disadvantaged), DEIS Urban Band 2 and Rural DEIS.

TABLE 1.1 NUMBER OF MISSING CASES ON OUTCOME MEASURES

Measures	N
Naming vocabulary at five years	78
Ease of transition to primary school	3,307
Teacher–pupil relationship: Closeness	1,258
Teacher–pupil relationship: Conflict	1,272
Attitudes and dispositions to school	673
Language for communication and thinking	686
Linking sounds and letters	751
Skills in reading	737
Number skills	759
Socio-emotional wellbeing	673

Source: *Growing Up in Ireland study.*

Table 1.1 outlines the number of missing cases for the outcomes of concern in this report. The high number of missing cases regarding a child settling into school is related to the fact that some children had not started school at the time of the home visit (see Figure 1.1). The extent to which there are differences in profile by age at starting school is discussed in detail in Chapter 2. Only 78 children did not complete the vocabulary test at the time of the home visit. Over half of this group were recorded as having learning or emotional difficulties, so presumably were not administered the test on this basis. Teachers did not complete questionnaires in respect of 688 children in the sample so data are missing on children’s skills ratings, socio-emotional wellbeing and relationships with teachers for this group. Teacher non-response did not vary by child gender or having a SEN. Teacher non-response was somewhat higher in larger schools (6.7 per cent in very large schools compared with 3 per cent in very small schools) and therefore has a slightly greater effect on children from working-class or less educated families. The fact that these dimensions are controlled for in all of the analyses helps reduce the impact of missing data. Item non-response was slightly higher for some of the items in the teacher–pupil relationships scales. Non-response on these measures was slightly higher for working-class and migrant groups, as well as children with learning or emotional disabilities. The potential implications of this pattern are discussed in Chapter 4.

The analyses control for a range of child and family factors, as well as experiences of preschool care and education. Non-response levels were low on the core background variables. For all models, dummy variables have been included to indicate missing values. This approach has the advantage of using the total sample, thus providing more precise estimates. These dummy variables are not of substantive interest so are not reported in the tables.

In each chapter of this report, descriptive analyses of the main patterns are presented, followed by multivariate models designed to look at a number of factors simultaneously. Multilevel models are used for the analyses in Chapter 4 in order to provide more precise estimates of differences between schools and classrooms. Social systems frequently have a hierarchical organisation; for example, people (level 1) live in households (level 2) in local authority areas (level 3), and students (level 1) learn in schools (level 2). The existence of hierarchically organised data means that we need to take this hierarchy into account when analysing data (Goldstein, 2003). Traditional regression techniques have involved the assumption that there is no autocorrelation within the data; that is, that students represent independent observations, rather than being clustered within schools. Treating students in a school as independent observations results in mis-estimated precision, incorrect standard errors, confidence limits and tests (Jones, 1991). In contrast to regression procedures, multilevel modelling techniques take the clustering of individuals within groups into account.

Analyses presented in this report were carried out using the MLwiN computer package (see Rasbash et al., 2012). Output from this package provides estimates of both fixed and random parameters. Fixed parameters can be interpreted in the same way as conventional regression coefficients. Where outcomes are continuous (as with ease of transition to primary school, for example), higher values indicate that the factor is associated with a greater ease of transition, taking account of the other factors in the model. Where outcomes are binary or categorical (as is the case for attitudes to school, for example), the coefficients are presented in terms of odds ratios; thus, an odds ratio of two for gender would indicate that girls are twice as likely as boys to have very negative attitudes to school. The distinctive feature of multilevel modelling is that it provides estimates of random parameters – that is, the amount of variation between individuals and schools. This can indicate the extent to which schools differ, taking account of student characteristics. The findings based in this report are based on three-level models, with children (level 1) regarded as clustered within their classrooms (teachers) (level 2), which are clustered within primary schools (level 3). The study children were spread across 2,235 primary schools and had 4,006 teachers, reflecting the fact that many children in the same school were taught by different class teachers. Using a three-level model allows for a more precise estimate of potential variation by both school type and teacher characteristics and serves to control for the extent to which different types of teachers are employed in different schools.

1.5 OUTLINE OF THE REPORT

Chapter 2 looks at children's experiences of education and care prior to starting school and the factors associated with age on starting school. The chapter also examines parental and teacher views on the skills and capacities children should have when starting school, as well as on the kinds of information teachers receive on incoming students. Chapter 3 looks at the kinds of learning contexts experienced by five-year-olds, including the size and structure of the class, the characteristics of their teacher, the teaching methods used, time allocated to different subject areas and the nature of communication between school and home. Chapter 4 explores children's adjustment to primary school, as reported by their mother, and teacher ratings of the child's skills and capacities. Chapter 5 summarises the main findings and discusses the implications for policy development.

CHAPTER 2

Age on starting school

2.1 INTRODUCTION

The appropriate age for children to start education has been the subject of much research and policy debate internationally. There is very marked variation across countries in school starting age, ranging from four to seven years of age (Sharp, 2002; O’Kane and Murphy, 2016b). Research has shown that children who are younger than their peers on school entry may have greater academic and socio-emotional difficulties (see, for example, Fredriksson and Öckert, 2014; Datar, 2006). School start can be influenced by a range of factors, including the perceived maturity of the child, family situation and parental employment. More broadly, the decision about when to send a child to school may also reflect access to other forms of education and care in the early years. This chapter looks at the factors influencing age at starting school among the *Growing Up in Ireland* (GUI) infant cohort, relating the timing to a broad array of family and child factors. Section 2.2 places this decision in context by looking at children’s participation in different forms of care and education before starting school. Section 2.3 considers preschool language development, while Section 2.4 focuses on children’s age on starting school. Sections 2.5 and Section 2.6 look at the perceptions of when children are ‘ready’ to start school on the part of parents and teachers respectively. Section 2.7 looks at the transfer of information from preschool settings to primary school teachers.

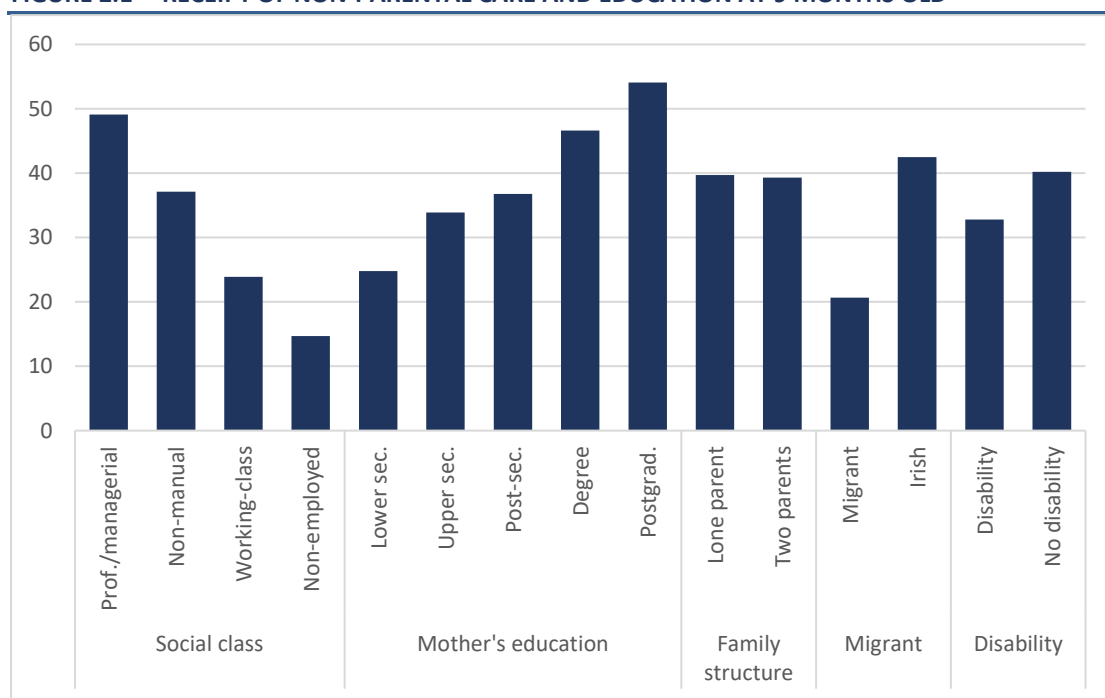
2.2 TAKE-UP OF DIFFERENT TYPES OF EDUCATION AND CARE PRIOR TO STARTING SCHOOL

The sample in the infant cohort was the first cohort of children in Ireland to be able to avail of the funded preschool year provided through the Early Childhood Care and Education (ECCE) scheme. The survey collected information on whether parents had availed of the scheme and whether they had paid for additional hours over and above those provided through the scheme. In addition, information had been collected on use of non-parental care at nine months and three years of age.

At nine months old, 40 per cent of infants had been in receipt of non-parental care on a regular basis each week. In total, 11 per cent of the infants were in centre-based care, with 17 per cent being looked after by a relative and 12 per cent a non-relative (either in their home or in the

carer's home). The use of non-parental care varied significantly by family socio-economic circumstances, with more advantaged families more likely to use non-parental, especially centre-based, care (see also McGinnity et al., 2013). Thus, infants from professional/managerial families and those with graduate mothers were more likely to experience non-parental care (Figure 2.1). At nine months old, there was no difference by family structure in the receipt of non-parental care. Infants from immigrant families were much less likely to be in receipt of non-parental care. In addition, infants with a disability were less likely to be in receipt of non-parental care but the proportion in centre-based care was similar to that for infants without a disability. Families living in urban areas were slightly more likely to use non-parental care (62 per cent compared with 59 per cent), a pattern driven by the greater use of centre-based care (12 per cent compared with 9 per cent).

FIGURE 2.1 RECEIPT OF NON-PARENTAL CARE AND EDUCATION AT 9 MONTHS OLD

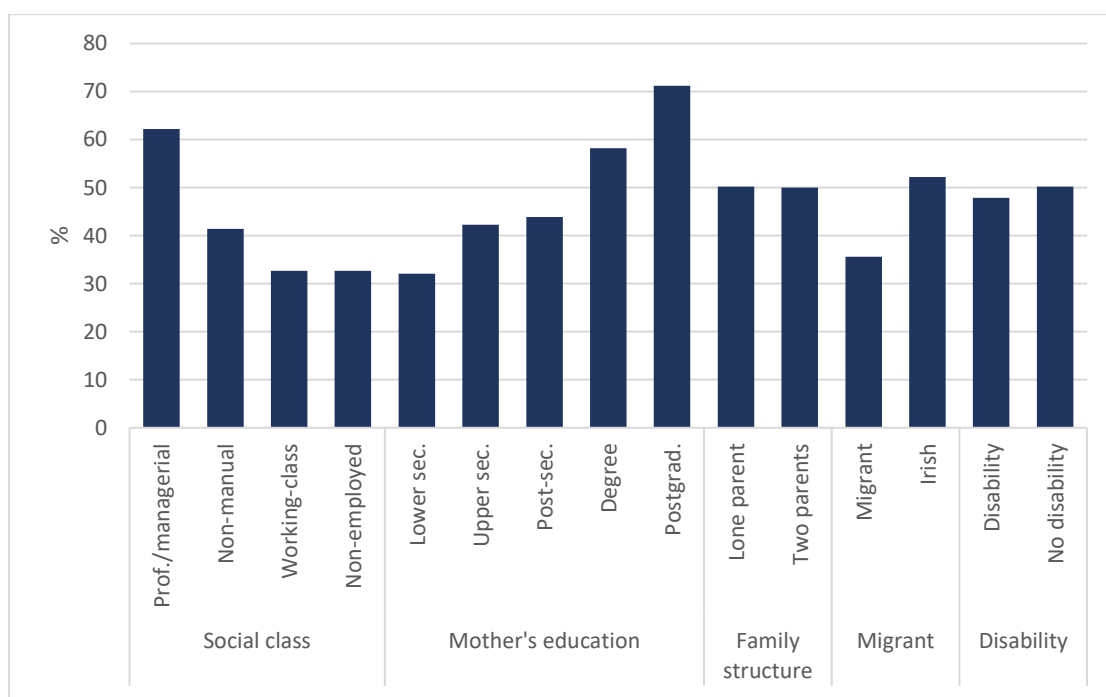


Source: *Growing Up in Ireland* study.

By three years of age, a higher proportion (50 per cent) of children was in receipt of regular non-parental care than had been the case at nine months old. The use of centre-based care had increased to 27 per cent, with relative and non-relative care each occurring in 12 per cent of cases. Social gradients were similar to those found two years previously, with use of non-parental, especially centre-based, care much greater among graduate and professional/managerial families (Figure 2.2). The patterns by family structure and migrant status were also similar to those found earlier. In contrast, there was a narrowing of the gap in the use of non-parental care

for children with and without disabilities. The urban–rural difference was greater for toddlers than for infants, with 35 per cent of families in urban areas using centre-based care compared with just 20 per cent of those in rural areas. Overall, patterns of participation in non-parental care reflect a complex interplay of different factors, including rates of maternal employment, access (both in terms of household income and geographical location) and the availability of extended family to help with childcare (see McGinnity et al., 2013). This study is concerned not with the causes of differential take-up but with the consequences in terms of children’s exposure to different types of care before they start primary school.

FIGURE 2.2 RECEIPT OF NON-PARENTAL CARE AND EDUCATION AT 3 YEARS OF AGE

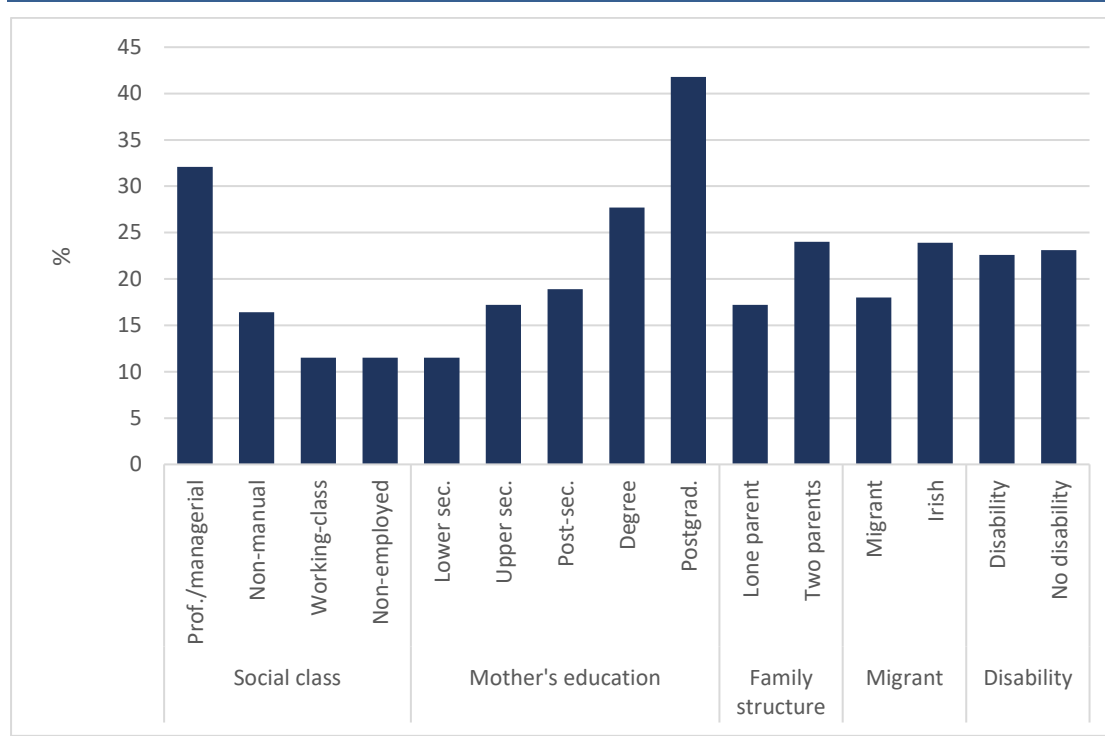


Source: *Growing Up in Ireland study.*

The vast majority (96 per cent) of parents availed of the ECCE scheme, with just under one-quarter (23 per cent) of families paying for additional hours with the same provider. Although ECCE take-up levels were high across all groups of families, some groups had higher non-take-up levels than others; this related to more disadvantaged groups (12 per cent of the non-employed and 10 per cent of those with lower secondary education or less) and to the child having a disability (9 per cent non-take-up). More advantaged groups were more likely to pay for additional hours over and above the ECCE provision (Figure 2.3), with highest levels of take-up among the professional/managerial group and graduate, especially postgraduate, mothers. A gap in take-up appears by family structure, with lone parents less likely to pay for hours over and above those provided through ECCE.

Those from migrant families were also less likely to pay for additional hours while those in urban areas were more likely to do so (29 per cent compared with 18 per cent). There was no difference in the rate of use of additional hours by child disability.

FIGURE 2.3 PAYMENT FOR ADDITIONAL HOURS OF CARE AND EDUCATION AMONG THOSE TAKING PART IN THE ECCE SCHEME



Source: *Growing Up in Ireland study.*

These patterns mean that children have had very different exposure to non-parental care and centre-based settings prior to starting school. While almost all have had some exposure through the ECCE programme, the type and duration of non-parental care varies significantly by family socio-economic circumstances. As a result of this differentiation, children starting in different types of primary schools will have had different experiences of early childhood care and education. In particular, children starting in DEIS (Delivering Equality of Opportunity in Schools) schools are less likely to have experienced non-parental care at the ages of nine months and three years of age. Furthermore, non-take-up of ECCE, at 16 per cent, was highest among those going to Urban Band 1 DEIS schools. Payment for additional hours over and above those provided under the ECCE scheme was also less prevalent among those who subsequently went to DEIS schools.

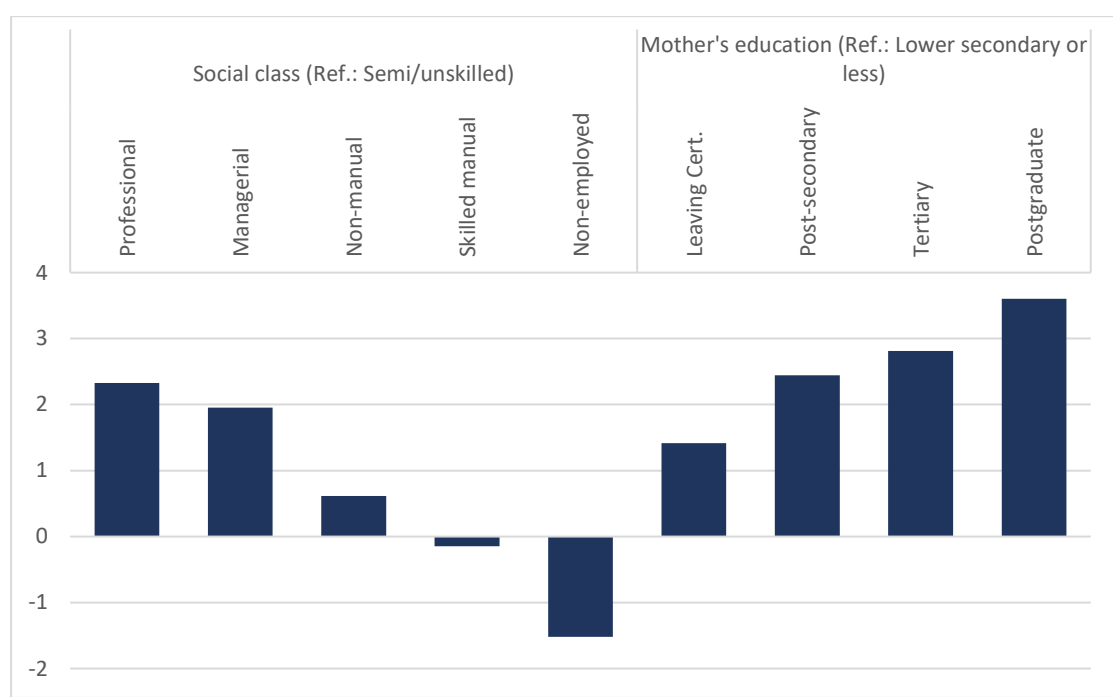
Analyses later in the report examine whether the type of preschool care and education received influences the ease of transition to primary

education. The following section looks at the skills children have developed before they enter the school system, focusing on language development.

2.3 PRESCHOOL LANGUAGE DEVELOPMENT

The longitudinal nature of the GUI study means that we can look at the skills developed by children before they reached school age, as well as exploring their development on school entry. At the age of three, the children were administered the British Ability Scale (BAS) test on naming vocabulary, which captured their verbal skills at this stage. Figure 2.4 shows variation by social background characteristics in the vocabulary test scores, while Figure 2.5 shows differences by other child and family characteristics. These figures are based on multivariate model results (full models not shown here), which allows us to compare the simultaneous effects of different characteristics.

FIGURE 2.4 NAMING VOCABULARY AT AGE 3 BY SOCIAL BACKGROUND (MODEL RESULTS)



Source: *Growing Up in Ireland* study.

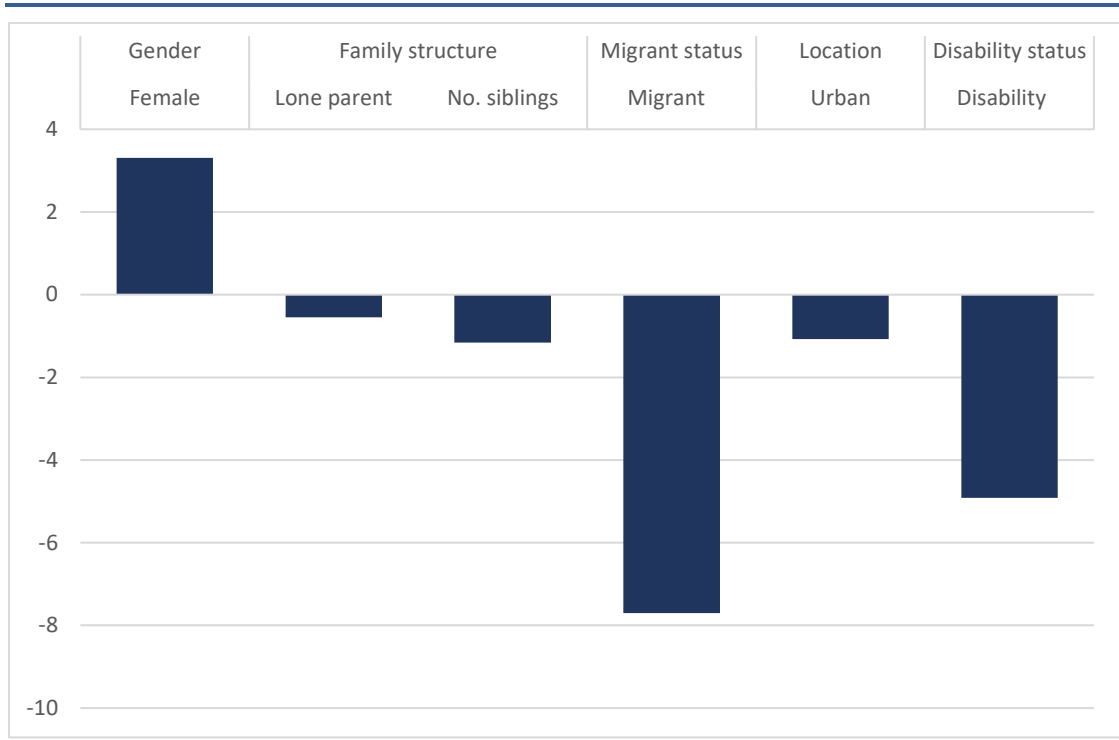
It is clear that language development among three-year-olds differs significantly by the socio-economic characteristics of their families. Children from professional/managerial families achieve around two points more than those from semi/unskilled manual backgrounds, while those from non-employed households achieve even lower scores, even taking account of the mother's education. Children whose mothers have a primary or postgraduate degree score 2.8 to 3.6 points higher than other children (Figure 2.4). Children's vocabulary test scores do not vary by

family structure, that is, whether they are from a lone parent or two-parent family, once social class and parental education are taken into account (Figure 2.5). However, children with more older siblings have significantly poorer language development at this stage. Girls score better in this vocabulary test, by about three points, than boys. Those living in urban areas have lower vocabulary scores on average than those in rural areas, even taking account of differences in socio-economic characteristics. Children from migrant backgrounds achieve significantly lower vocabulary scores than children from native Irish families, with a sizeable gap of 7.7 points evident at the age of three. There is also a developmental gap for children with disabilities, who score almost five points lower than their peers.

In sum, early language development varies markedly by the social circumstances of the family into which children are born. These patterns are important given the role of vocabulary as a foundation for later school engagement (see Kennedy et al., 2012). At the same time, it is important to note that social class background and maternal education explain only 4 per cent of the variation found in children's test scores. Thus, while social differentiation is marked, other factors also play a role in shaping children's developmental outcomes.

The extent to which early language development influences children's skills and dispositions on school entry is explored further in Chapter 4. The following section examines whether early vocabulary skills play a role in the timing of children's school start.

FIGURE 2.5 NAMING VOCABULARY AT AGE 3 BY CHILD AND FAMILY CHARACTERISTICS (MODEL RESULTS)

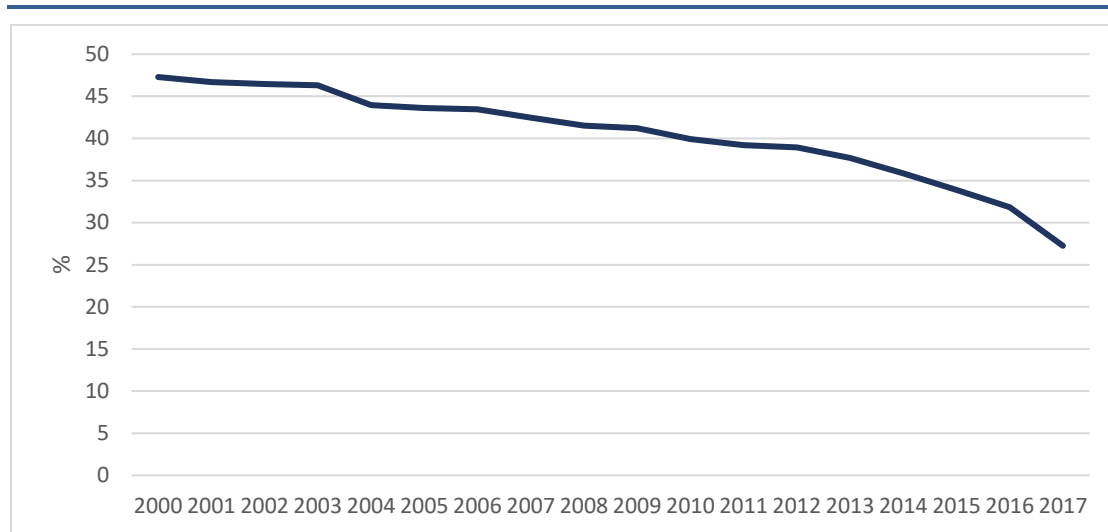


Source: Growing Up in Ireland study.

2.4 AGE ON STARTING SCHOOL

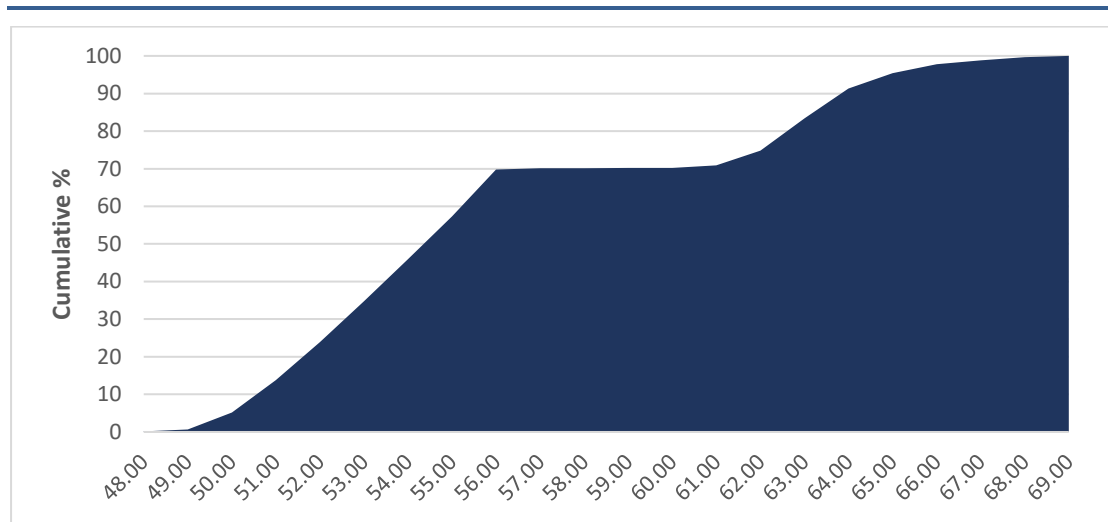
2.4.1 Average age on school entry

Irish administrative data indicate that there has been an increase over time in the age at which children begin primary education, with the proportion of four-year-olds in junior infant classes declining from 47 per cent in 1999–2000 to 27 per cent in 2016–2017 (Figure 2.6). While the increase accelerated after the rollout of the ECCE scheme, a longer-term reduction in early school start was already evident prior to this time-point.

FIGURE 2.6 PROPORTION OF CHILDREN IN JUNIOR INFANT CLASSES AGED 4 YEARS OR UNDER ON 1 JANUARY OF THE SCHOOL YEAR

Source: Department of Education and Skills, Education Statistics Database.

Figure 2.7 shows the cumulative percentage of children who had started school by age in months among the GUI cohort. Almost half (46 per cent) of children started school by the age of 4.5 years, with 70 per cent starting by or at five years of age. As a result, there is a considerable spread in ages among children in junior infant classes.

FIGURE 2.7 CUMULATIVE PERCENTAGE OF CHILDREN WHO HAVE STARTED SCHOOL BY AGE IN MONTHS

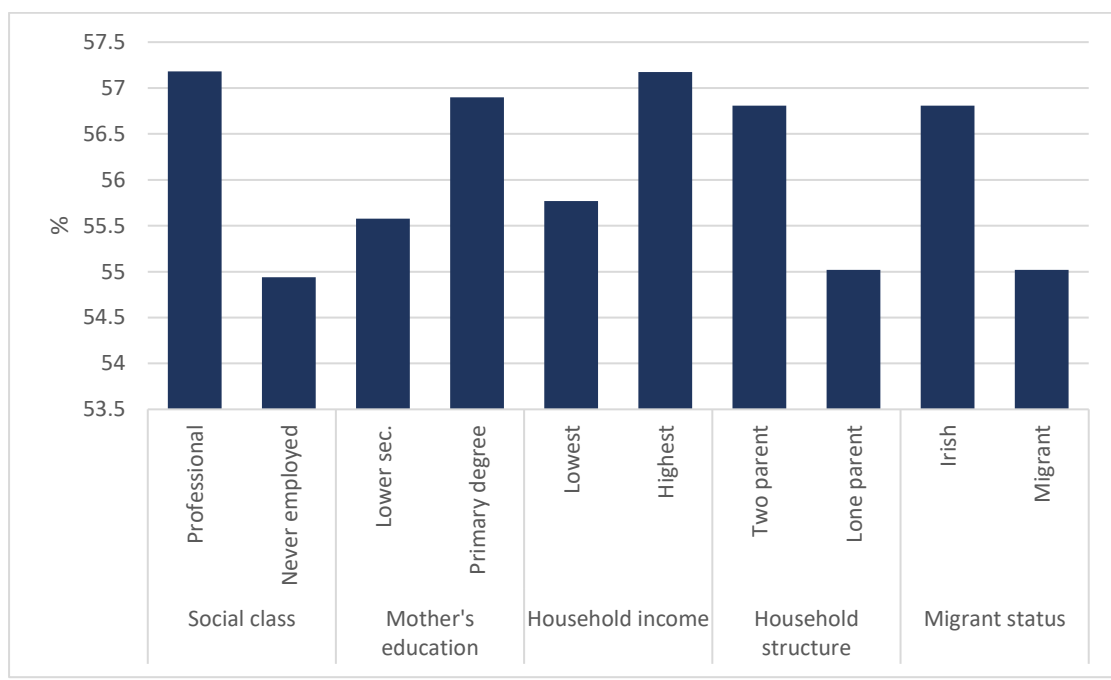
Source: Growing Up in Ireland study.

2.4.2 Factors influencing age at starting primary school

Differences in age at starting school are evident across different groups of children. Girls tend to be slightly younger (by about a month) on average than boys. In general, children from more advantaged homes tend to start school later than their less advantaged counterparts (Figure 2.8). Thus,

school start is later among those with professional parents, mothers with a degree, higher income households and two-parent families. These differences are substantial, with an average difference of two months between children from professional families and those without anyone in employment, for example. In addition, children from migrant families tend to start school an average of two months before Irish children.

FIGURE 2.8 AVERAGE AGE (IN MONTHS) STARTING SCHOOL BY FAMILY SOCIO-ECONOMIC CHARACTERISTICS



Source: *Growing Up in Ireland study.*

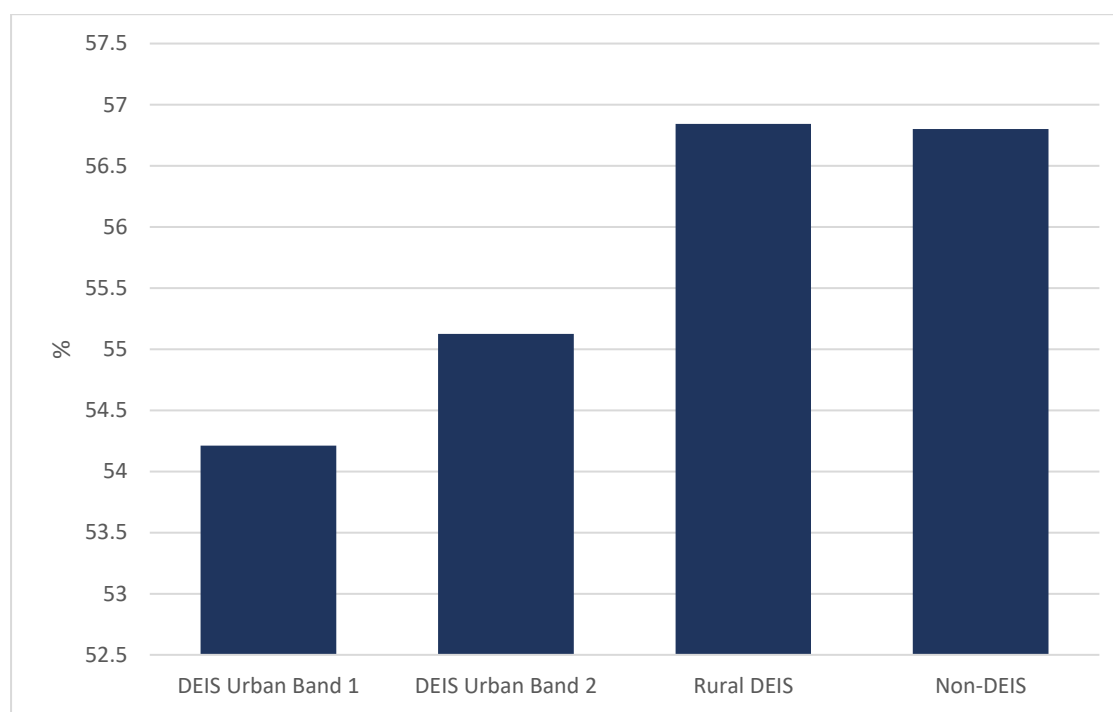
Children with a disability or special educational need (SEN), as identified by their mother, tend to be older than other children when starting school, by two months on average. Among those with SEN, children with socio-emotional or learning difficulties tend to start school slightly later than those with physical disabilities.

The previous section highlighted differences among groups of children in their exposure to early childhood care and education. The type of childcare used by the family when the infant was nine months old is not markedly associated with age at school start, though those cared for by a non-relative (but not in centre-based care) tend to start school slightly later. Type of childcare at the age of three years is somewhat more strongly related to timing of school start, with having been in centre-based care associated with a slightly younger start, while those cared for by a non-relative (childminder) tend to be somewhat older. However, given that the use of different forms of childcare varies across different types of families, the multivariate analyses presented below will give a more accurate

picture of the relationship between type of childcare and school start by taking account of a range of factors. Those who did not take part in the ECCE scheme started school an average of one month earlier than their peers.

Children starting in urban DEIS schools are significantly younger than those beginning in rural DEIS or non-DEIS schools (Figure 2.9). The earliest start is found among children in Urban Band 1 schools, who are on average almost three months younger than those attending non-DEIS schools. Whether this reflects the more disadvantaged social profile of children attending DEIS schools or not is explored below.

FIGURE 2.9 AVERAGE AGE (IN MONTHS) STARTING SCHOOL BY DEIS STATUS OF THE SCHOOL



Source: *Growing Up in Ireland* study.

The remainder of this section uses a series of multivariate models to identify the relative importance of different factors influencing age at starting school, taking account of the time of year when the children were born. Age at school start was standardised to have a mean of zero and a standard deviation of one to allow for a comparison of the relative influence of different factors. Positive coefficients indicate that the factor is associated with children being older starting school while negative coefficients show that children with those characteristics are younger on school entry.

Not surprisingly, timing of birth has the strongest effect on school starting age, with summer-born children approximately two and a half months older than their peers, other background factors being equal (Table 2.1). Even taking account of family socio-demographic characteristics, girls are significantly younger than boys starting school. Children with more highly educated mothers start school later than others, with the youngest entry among those whose mothers have lower secondary education or less and the latest start among those whose mothers have postgraduate degrees. Even taking account of maternal education, which is closely related to social class, children from professional (and, to a lesser extent, managerial) families tend to be slightly older starting school than those from working-class (semi-skilled or unskilled manual) backgrounds, while those from non-employed households tend to be slightly younger. Taking account of other background factors, those who have more older siblings tend to start school later, though the size of the difference is very small. Children from lone parent families tend to start school earlier, as do children from migrant families. Those living in urban areas tend to start school earlier, even taking account of other socio-demographic characteristics.

The second set of models explores whether children with a disability or SEN, as identified by their mother, start school later or earlier than their peers. The findings indicate that, other factors being equal, those with disabilities start school significantly later than other children – with an average gap of almost two months.

Model 3 takes account of two sets of factors: the quality of the parent–child relationship and the cognitive development of children (both measured at three years of age). The quality of the parent–child relationship is measured using the Pianta Parent–Child Relationship Scale; completed by the primary caregiver; it has two subscales, one focusing on positive aspects of the relationship, the other capturing perceived difficulties or conflict in the caregiver’s relationship with the child. Child cognitive development at age three was assessed using two scales – naming vocabulary and picture similarities – of the BAS, which were designed to assess verbal skills and problem-solving skills respectively (see McCrory et al., 2013). It might be expected that mothers with especially close relationships with their children may delay school start, while children who were seen as having more advanced cognitive skills may be viewed as ‘ready’ for school at an earlier stage. Children with whom mothers report positive relationships or conflict tend to start school earlier, but the differences in question are very small so do not seem to make a substantive difference. Interestingly, there is no evidence that children with better naming vocabulary at the age of three are more likely

to start school earlier. Those with higher scores on the picture similarity test tend to start school slightly earlier but the difference is very small. It may be that cognitive development after having completed the ECCE year, which was not measured through the survey, might have more influence on decisions around the timing of school start.

Model 4 looks at the potential influence of the child's temperament and socio-emotional wellbeing, again measured at three years of age. There is no evidence that parents postpone sending their children to school if they have greater socio-emotional difficulties in terms of conduct, emotional or hyperactivity difficulties or peer problems. There is some evidence that children who are seen as exhibiting more prosocial behaviour start school slightly earlier. Children who demonstrate the trait of persistence also tend to be sent to school earlier.

Children who had been in centre-based childcare at the age of three started school slightly earlier than those cared for full-time by their mothers, other factors being equal (Model 5). However, there is little variation in school start between those cared for full-time by their parents or by a relative or non-relative. The fact that the vast majority of children took part in the ECCE scheme may have altered the extent to which parental decisions around school start were related to childcare arrangements prior to ECCE.

Even taking account of a range of social background characteristics, children tend to start in DEIS Urban Band 1 schools at an appreciably younger age; a tendency was also found for those in Urban Band 2 schools to be slightly younger, but much less so than is the case for Urban Band 1 schools (Model 6). At the other end of the spectrum, children are also younger starting in fee-paying schools and, to some extent, over-subscribed schools (that is, schools that receive more applications than there are places available).

In sum, while timing of birth makes a difference, family background and child disability also impact on age at starting school, with earlier school start among more socially disadvantaged children and those from lone parent or migrant families, and later school start among more advantaged groups as well as those with a disability. Having earlier experience of centre-based care is also associated with a younger school start. Although there is clear variation in school starting age by family, child and school characteristics, these factors only explain 12 per cent of the variation in age, suggesting that a range of other factors play a role in parental

decisions around school start. Parental perceptions around when their child should start school are explored further in the following section.

TABLE 2.1 FACTORS ASSOCIATED WITH AGE ON STARTING SCHOOL

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	-0.096	-0.126	0.791	0.931	0.966	1.006
Female	-0.170***	-0.155***	-0.139***	-0.129***	-0.130***	-0.130***
Social class:						
Professional	0.095*	0.097*	0.101*	0.094*	0.103*	0.068
Managerial	0.077±	0.082*	0.084*	0.078±	0.083	0.056
Non-manual	-0.007	-0.008	-0.030	-0.036	-0.032	-0.047
Skilled manual	0.033	0.064	0.035	0.041	0.041	0.028
Non-employed (Ref.: Semi/unskilled)	-0.092±	-0.105*	-0.126*	-0.125*	-0.123*	-0.111
Mother's education:						
Leaving Certificate	0.086**	0.083*	0.084*	0.073*	0.073*	0.057±
Post-secondary	0.118**	0.115**	0.137**	0.135**	0.133**	0.113*
Tertiary	0.134***	0.134***	0.154****	0.142***	0.141***	0.112**
Postgraduate degree (Ref.: Lower secondary or less)	0.205***	0.210***	0.234***	0.221***	0.222***	0.189***
Number of older siblings	0.032**	0.030**	0.031**	0.030**	0.026*	0.028**
Lone parent family	-0.166***	-0.175***	-0.147***	-0.144***	-0.138***	-0.130***
Migrant family	-0.217***	-0.209***	-0.264***	-0.266***	-0.267***	-0.260***
Living in an urban area	-0.213***	-0.217***	-0.220***	-0.219***	-0.205***	-0.187***
Summer-born	0.455***	0.453***	0.471***	0.466***	0.463***	0.460***
Has a disability/SEN		0.338***	0.261***	0.255***	0.258***	0.269***
Positive parent-child relationship			-0.019**	-0.010±	-0.011±	-0.009
Parent-child conflict			-0.004*	-0.004	-0.003	-0.003
Naming vocabulary score at 3			0.000	0.000	0.000	0.000
Picture similarity score at 3			-0.004***	-0.004***	-0.004***	-0.004***

(Table 2.1 continued overleaf.)

TABLE 2.1 (CONTINUED)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
SDQ prosocial subscale				-0.024***	-0.024***	-0.020**
SDQ conduct subscale				-0.008	-0.009	-0.006
SDQ emotional subscale				0.009	0.011	0.011
SDQ hyperactivity subscale				-0.004	-0.005	-0.004
SDQ peer problems subscale				0.008	0.006	0.007
LSAC persistence subscale				-0.043	-0.044**	-0.045**
LSAC reactivity subscale				-0.021	-0.021±	-0.021±
LSAC sociability subscale				0.000	-0.001	0.000
Type of care at 3:						
Relative						
Non-relative					-0.035	-0.029
Centre-based					0.061±	0.056
(Ref.: Parents)					-0.091**	-0.093***
DEIS status:						
Urban Band 1						-0.277***
Urban Band 2						-0.079***
Rural DEIS						-0.004
(Ref.: Non-DEIS)						
Fee-paying school						-0.220*
School over-subscribed						-0.070**
R ²	0.096	0.104	0.116	0.118	0.120	0.127

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

2.5 PARENTAL VIEWS ON STARTING SCHOOL

At the time of the third wave of data collection within the home, the majority (72 per cent) of children had started school (see Chapter 1). These parents were asked to respond to a series of statements regarding their child's readiness for school. The responses given were generally very positive, with 98 per cent reporting their child could go to the toilet on their own, 97 per cent agreeing or strongly agreeing that their child knew enough about sharing and taking turns to manage at primary school, and 95 per cent feeling their child was able to mix socially. A slightly smaller proportion (85 per cent) felt their child had the necessary pre-reading and writing skills to start school. Only a small number had concerns about their child starting school, being worried that the child would find being apart from them too difficult (13 per cent), feeling their child was not independent enough (9 per cent) and being concerned that their child would be reluctant to go to school (15 per cent). These items were used to form a scale of perceived school readiness among parents (see Murray et al., forthcoming).⁹ Some differences were evident between groups of children, with girls, those from professional/managerial households, those with graduate mothers, those from two-parent families, those from Irish families and those without a disability being seen as more 'school ready' than other children.

Those parents whose children had not yet started school at the time of the home interview were given a series of possible reasons. The main reasons seen as 'very important' were thinking the child was too young (79 per cent) and feeling the child was 'not ready' (65 per cent). Other reasons included the advice of preschool or school staff to defer school start (10 per cent), the child having a speech or developmental delay (10 per cent) and the child having a health problem or disability (7 per cent).

Families whose children had already started school were asked about the sources of advice and information they had used before their child started school and the kinds of activities they engaged in to get the child 'ready to start school'.¹⁰ The main sources of advice mentioned were friends (50 per cent) and other parents (49 per cent). Preschool staff were mentioned by a significant minority (39 per cent) of mothers, while more than one-quarter (29 per cent) mentioned primary school staff. Other sources of advice included their own siblings (24 per cent) and the school website (23 per cent). There was some variation across families in their use of different sources of information. More highly educated mothers were much more likely to go to preschool staff for advice (with 44 per cent of those with postgraduate degrees doing so compared with 34 per cent of mothers with lower secondary education or less) and somewhat more likely to go to primary school staff for advice (34 per cent compared with 28 per cent respectively). More highly

⁹ The scale has a reliability of 0.75.

¹⁰ The same questions were asked of those whose children had not yet started school, with very similar patterns of responses.

educated and professional/managerial women were also more likely to go to their friends and other parents for advice. Migrant parents were more dependent on primary school staff (34 per cent compared with 28 per cent), the school website (27 per cent compared with 22 per cent) and friends (57 per cent compared with 49 per cent) for advice. Migrant parents were much less likely to rely on their own siblings for advice (13 per cent compared with 26 per cent), most likely reflecting the fact that their siblings were outside the country and therefore unfamiliar with the Irish education system. Lone parent families did not differ markedly from two-parent families in terms of sources of advice, though they were more likely to depend on siblings and less likely to rely on the school website. What is evident from the findings is the greater reliance of more advantaged families on both formal and informal sources of advice. Further analyses reveal that the use of multiple sources of advice is part of an active school choice strategy, with reliance on different information sources more prevalent among parents who had registered their children for multiple primary schools in an effort to secure their preference. In keeping with this pattern, parents whose child is attending an over-subscribed school are more likely to report having relied on friends, other parents and the school website for information.

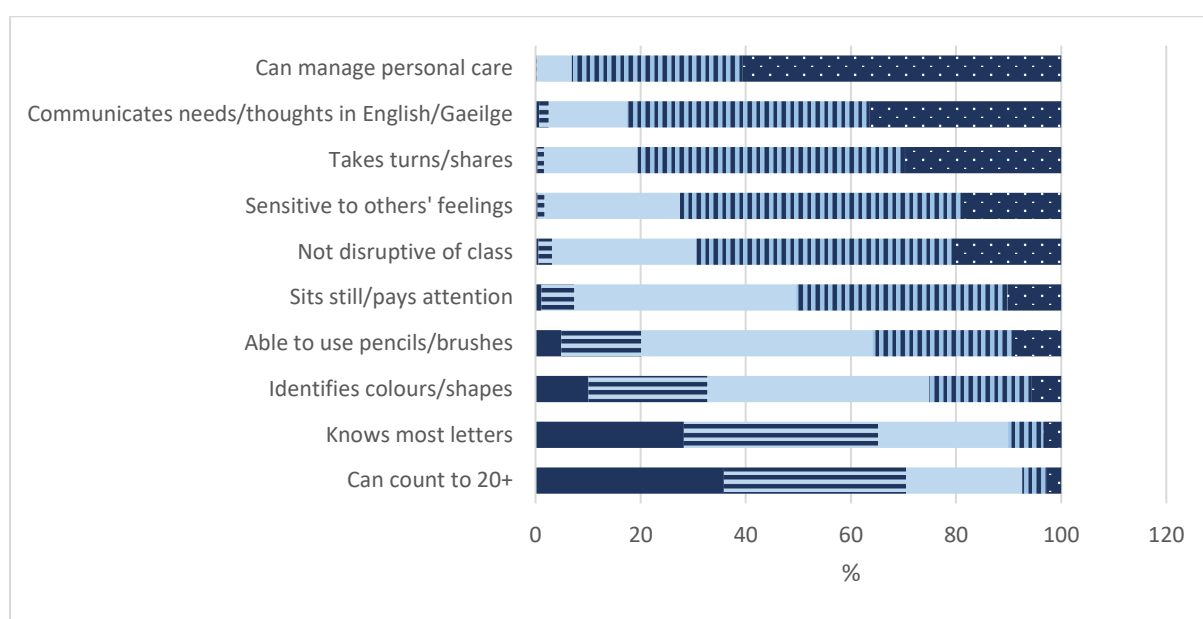
In preparation for the child starting school, almost all (98 per cent) mothers reported talking to their child about school. The vast majority attended an information session at the school (86 per cent), visited the school (81 per cent) and practised reading, writing or numbers with the child (81 per cent). Over half (55 per cent) also sought advice from friends, neighbours and/or family in preparing the child for starting school. Many of these preparatory activities were prevalent across social groups, but more advantaged families were somewhat more likely to attend a school information session, with 88 per cent of the professional/managerial group doing so, compared with 82 per cent of the non-employed group. In addition, highly educated mothers were much more likely to seek advice from friends, neighbours or family members, with 65 per cent of postgraduate mothers doing so, compared with 48 per cent of those with lower secondary education or less. Migrant families and those whose child had a disability were somewhat more likely to visit the school before the child started school than other parents. An interesting finding is that the less advantaged families are slightly more likely to practise reading, writing or numbers with their child as a preparation for school (85 per cent of mothers with a Junior Certificate education or less did so compared with 74 per cent of postgraduate mothers), perhaps reflecting some differences in views regarding the skills needed to be 'ready' for school.

2.6 TEACHER VIEWS ON STARTING SCHOOL

Information from primary school teachers was collected later in the year, at which point almost all children had started school (see Chapter 1). Teachers of the five-year-olds were asked a series of questions about the relative importance of

different skills and competencies in a child being ready for primary school; the rating ranged from 'not important' to 'essential'. Figure 2.10 shows that primary teachers tended to rate practical and socio-emotional skills more strongly than academic skills, in keeping with previous research (see Ring et al., 2016). Almost all (93 per cent) primary teachers thought that it was 'essential' or 'very important' that children could manage their personal care before starting school. Over four-fifths (83 per cent) gave a similar rating to the importance of children being able to communicate their needs, wants and thoughts through English or Gaeilge. Social skills such as taking turns/sharing, being sensitive to other children's feelings and not being disruptive of the class were seen as 'essential' or 'very important' by a majority of the primary teachers surveyed. Being able to sit still and pay attention was considered essential or very important by half of the teachers, with four in ten deeming it 'somewhat important'.

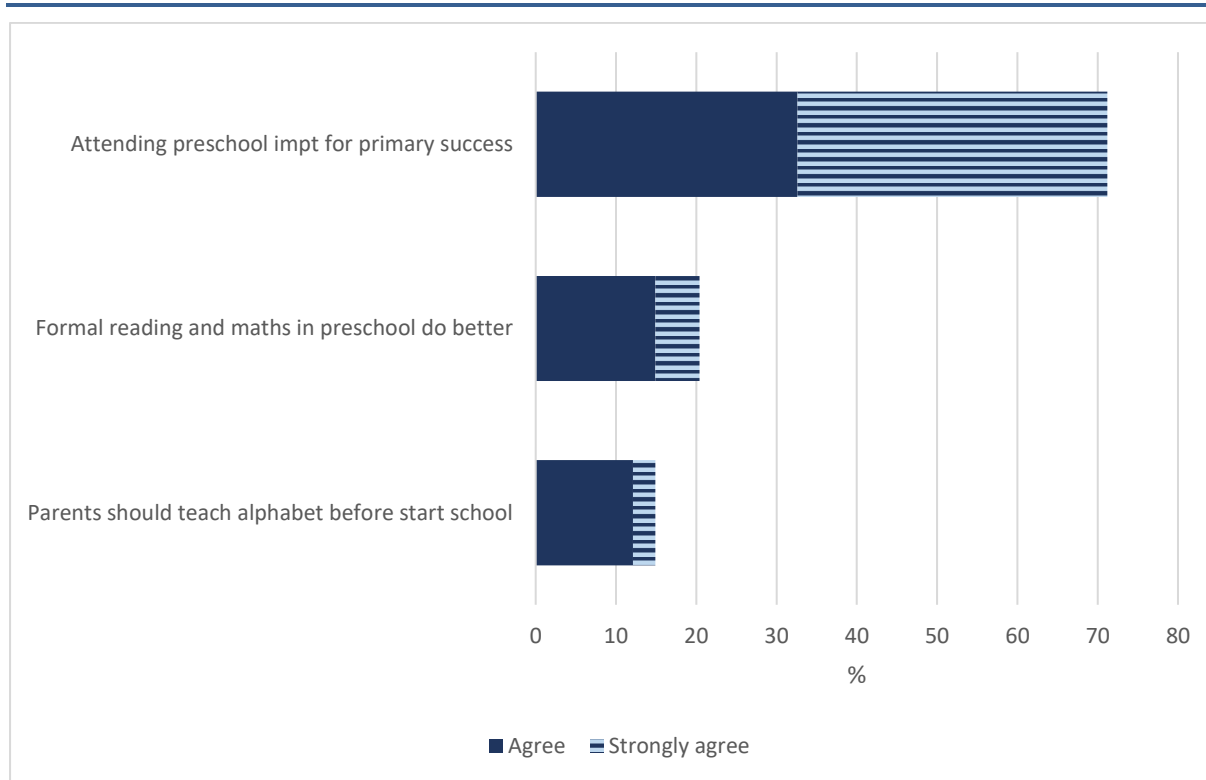
FIGURE 2.10 TEACHER RATING OF IMPORTANCE OF DIFFERENT SKILLS AND COMPETENCIES FOR A CHILD'S READINESS TO START SCHOOL



Source: *Growing Up in Ireland study.*

In contrast, teachers did not see it as important that children had more 'academic' skills before entering primary school. The majority (71 per cent and 65 per cent respectively) deemed it 'not important' or 'not very important' that children could count to 20 or more or knew most letters of the alphabet. However, it is worth noting that a sizeable minority – over one-fifth – saw these skills as 'somewhat important'. The majority of teachers considered it as at least somewhat important that children could use pencils or paintbrushes and identify colours or shapes (Figure 2.10).

FIGURE 2.11 TEACHER AGREEMENT (% 'AGREE' AND 'STRONGLY AGREE') WITH STATEMENTS ON PREPARATION FOR PRIMARY SCHOOL



Source: *Growing Up in Ireland study.*

Teachers were asked whether they agreed or disagreed with a related set of statements on children's preparation for primary schooling (Figure 2.11). The majority (71 per cent) agree with the statement that 'attending pre-school (for example, Montessori or Early Start) is very important for success in primary school'. However, in keeping with responses in Figure 2.10, only a minority felt that 'children who begin formal reading and maths instruction in preschool will do better in primary school', or that 'parents should make sure their children know the alphabet before they start primary school'.

Significant differences in some views are found by teacher experience and gender. Teachers with longer years of experience were more likely to deem being able to count as not important than more recently qualified teachers; this difference was sizeable, with over half (52 per cent) of those with 20 or more years of experience describing it as 'not important', compared with one-quarter of those who qualified within the last three years. A similar pattern was evident in relation to whether children should know most of the letters of the alphabet before starting school, with 42 per cent of the most experienced teachers deeming it 'not important' compared with 19 per cent of the recently qualified. On the other hand, more experienced teachers were much more likely to view not being disruptive in class as 'essential' for starting school (27 per cent of those with 20+ years' experience, compared with 17 per cent of those with three years or less). Similarly, more experienced teachers were more likely to consider children being able to manage their personal care as 'essential' (61 per cent, compared with 48 per cent of the

recently qualified). Male teachers are somewhat more likely than female teachers to rate counting as important; over one-third (36 per cent) of female teachers rate this as 'not important', compared with 19 per cent of male teachers. Male teachers are also more likely to rate knowing the alphabet as at least somewhat important, with 56 per cent doing so compared with 34 per cent of their female counterparts. Finally, male teachers were less likely than female teachers to see children being able to manage their personal care as 'essential' (39 per cent compared with 61 per cent).

There were few consistent differences by gender or experience in the rating of other aspects of child readiness. Neither were there many systematic differences in teacher perspectives by their type of school – in terms of social mix, gender mix or whether it was multi-grade (that is, with children from more than one class in the same classroom).

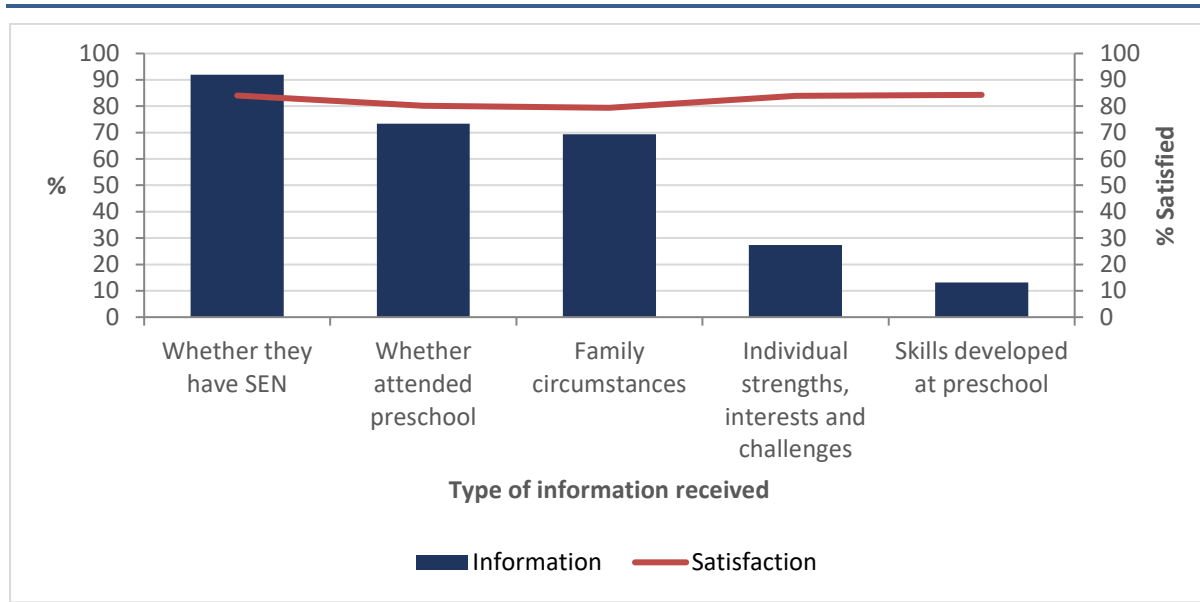
In relation to views on preschool education, more experienced teachers were somewhat less likely to see attending preschool as important for primary school success and were less likely to emphasise the importance of formal reading and maths instruction at preschool level. Less experienced teachers were more likely to consider that parents should teach children the alphabet before they start school. Male teachers were much more likely to agree or strongly agree about the importance of formal instruction at preschool level (46 per cent doing so, compared with 20 per cent of female teachers) and to agree that parents should teach children the alphabet before they start school. Teachers in urban DEIS schools were somewhat more likely to see attending preschool as important for primary school success. In addition, teachers in urban DEIS, especially Band 1, schools were more likely to emphasise the importance of formal reading and maths instruction in preschool.

2.7 TRANSFER OF INFORMATION TO THE TEACHER

A number of templates being used for the transfer of information from preschool to school settings have been identified (O'Kane and Murphy, 2016a). Work on the development of templates for rollout at national level is currently underway by the NCCA (NCCA, 2018a). In this context, it is useful to look at the kinds of information teachers currently receive and their degree of satisfaction with that information (Figure 2.12). The vast majority (92 per cent) of teachers reported receiving information on whether children had SEN. The majority also received information on whether the child had attended preschool and on family circumstances (73 per cent and 69 per cent respectively). Information gaps were much more evident in relation to children's individual strengths, interests and challenges, and in relation to the skills they developed in preschool (with only 27 per cent and 13 per cent respectively reporting receiving such information). Where teachers received information, they were generally satisfied with the information received. There was little variation by child or school characteristics in the receipt of information.

However, teachers in DEIS Urban Band 1 schools were somewhat more likely to report receiving information on individual children's strengths and challenges (39 per cent doing so compared with 26 per cent in non-DEIS schools).

FIGURE 2.12 TEACHER REPORTS ON RECEIPT OF INFORMATION IN RELATION TO CHILDREN IN THEIR CLASS AND THEIR SATISFACTION WITH THIS INFORMATION



Source: *Growing Up in Ireland study.*

2.8 CONCLUSIONS

This chapter has examined children's experience of care and education prior to starting school, their age on school start and teacher and parental perceptions of the qualities that will help children adapt to primary school. The cohort of children in the GUI study were among the first to avail of the ECCE scheme, so almost all had experience of centre-based care and education prior to starting school. Although rates of non-take-up of ECCE were generally low, non-take-up rates were higher among more disadvantaged groups (12 per cent of the non-employed) and children who went on to attend Urban Band 1 DEIS schools (16 per cent non-take-up). Children differed significantly in their experience of centre-based care prior to taking ECCE, with children from more advantaged families more likely to have experienced centre-based care at nine months and three years of age.

Average age at school start has been increasing over time, particularly since the introduction of the ECCE scheme. Among the sample, almost half had started school by 4.5 years of age, with 70 per cent starting by or at five years of age. This means that there is a considerable spread of ages among children in junior infant classes, posing potential challenges to teachers in catering for children at different developmental stages. Taking account of month of birth, age on school entry tends to be older among boys, children from more advantaged homes (in terms of social class and parental education) and among children with a disability/SEN. Children attending urban DEIS schools tend to be significantly younger starting school than those in rural DEIS or non-DEIS schools. Having earlier experience of centre-based

care (that is, prior to the age of three years) is also associated with a younger school start.

Mothers engaged in a range of activities to help their children prepare for starting school. Almost all (98 per cent) reported talking to their child about school and the vast majority attended an information session at the school (86 per cent), visited the school (81 per cent) and practised reading, writing or numbers with the child (81 per cent). Over half (55 per cent) also sought advice from friends, neighbours and/or family in preparing the child for starting school. These activities were prevalent across all social groups but it is interesting to note that engaging in formal learning activities in preparation for school was somewhat more common among those from disadvantaged backgrounds. This pattern may reflect different levels of awareness among parents as to the relative emphasis on play-based learning as opposed to 'academic' work in junior infant classes.

In keeping with previous research (see, for example, Ring et al., 2016), teachers tended to emphasise the importance of socio-emotional qualities in assessing a child's readiness to start school, and were much less likely to see pre-academic skills (such as being able to count or recognise letters) as important. However, it is worth noting that more recently qualified teachers tended to rate these pre-academic skills as more important than more experienced teachers. Teachers were asked about the information they received on incoming pupils; the vast majority (92 per cent) received information on whether the child had a disability/SEN. The majority also received information on whether the child had attended preschool and on their family circumstances. However, an information gap was evident in relation to the skills acquired by the child during preschool, an important issue for policy given the intention of Aistear to promote continuity of learning over the transition. Given this pattern, the adoption of templates by all early childhood practitioners for the exchange of information on each child is likely to facilitate greater continuity in experiences for children over the transition to primary school.

CHAPTER 3

The infant classroom

3.1 INTRODUCTION

This chapter examines the learning context for five-year-old children in primary classrooms. Section 3.2 looks at the size and structure of the class within which they are taught, while Section 3.3 examines teacher characteristics. Sections 3.4 and 3.5 explore teaching methods and the allocation of time across activities and subject areas. Because the cohort of children is spread across junior and senior infant classes, analyses explore potential differences in approaches across the two settings. Section 3.6 explores communication between parents and teachers.

3.2 CLASS SIZE AND STRUCTURE

Information was collected from the teachers of the children regarding size of class and whether or not it was multi-grade (that is, contained more than one year group). One-fifth (21 per cent) of the five-year-olds were taught in classes with fewer than 20 pupils, 24 per cent were taught in classes of 20–24 pupils, 36 per cent were in classes of 25–29, while 19 per cent were in classes of 30 or more pupils. Working-class children and those from non-employed families are more likely to be in smaller classes (29–30 per cent are in classes of fewer than 20 compared with 18 per cent of those from professional/managerial backgrounds). This is largely because of the smaller class sizes found in DEIS (Delivering Equality of Opportunity in Schools) schools, particularly in Urban Band 1 schools; almost half (48 per cent) of children taught in Urban Band 1 schools are in classes of fewer than 20 pupils, compared with 16 per cent of those taught in non-DEIS schools. Children living in urban areas are more likely than those in rural areas to be in larger classes of 30 or more pupils (22 per cent compared with 16 per cent). Children with disabilities are much more likely to be taught in small (<20) classes than those without disabilities (31 per cent compared with 21 per cent). This pattern largely reflects smaller class sizes among the small group of children with disabilities allocated to special classes. The impact of being taught in a special school on class size cannot be identified given the small numbers involved.

One-quarter of five-year-olds are being taught in multi-grade classes.¹¹ This is lower than the prevalence for nine-year-olds in Ireland (see McCoy et al., 2012). Children living in rural areas are more than five times as likely as urban children to be taught in a multi-grade class (39 per cent compared with 7 per cent). The majority (68 per cent) of children attending rural DEIS schools are taught in a multi-

¹¹ It should be noted that Department of Education and Skills statistics (see, for example, *Statistical Report 2016/17*) distinguish between consecutive grade (two year groups) and multi-grade classes (three or more year groups). Here, the term multi-grade is used to cover all classes with two or more year groups.

grade setting. Children with disabilities are equally likely to be taught in a multi-grade setting as other children.

The remainder of this chapter explores the extent to which class size and structure are associated with other aspects of teaching and learning.

3.3 TEACHER CHARACTERISTICS

Only 3.6 per cent of five-year-olds are taught by a male teacher, with a slightly higher representation of men in senior infants than in junior infant classes. Over one-quarter (28 per cent) of the children were taught by teachers who had less than five years' experience, while just under one-quarter (24 per cent) had teachers with 15 years or more experience. No differences in teacher experience are found between junior and senior infant classes.

Data on nine-year-olds in 2008 indicated an overrepresentation of newly qualified teachers in urban DEIS schools (McCoy et al., 2014). For the younger cohort, where data were collected in 2013, these stark differences are no longer evident, although there is still a tendency for more experienced teachers (15 years or more) to be underrepresented in urban DEIS schools; 14–17 per cent of five-year-olds in Urban Band 1 and 2 schools are taught by teachers with this level of experience, compared with 34 per cent in rural DEIS schools and 25 per cent in non-DEIS schools. The pattern for rural DEIS schools reflects a wider trend towards more experienced teachers in rural settings; 27 per cent of children in rural areas are taught by those with 15 or more years' experience compared with 20 per cent of urban children. The differences found between urban DEIS and other schools mean that children from working-class or non-employed families and those from migrant backgrounds, groups that are overrepresented in urban DEIS schools, are less likely to be taught by very experienced teachers. The level of teacher experience does not vary for children with disabilities or special educational needs (SEN) compared with their peers.

Analyses presented in the remainder of the chapter explore variation in teaching methods and time allocation by teacher experience. Because of the small number of male teachers in the sample, potential variation by gender is not discussed.

3.4 TEACHING METHODS

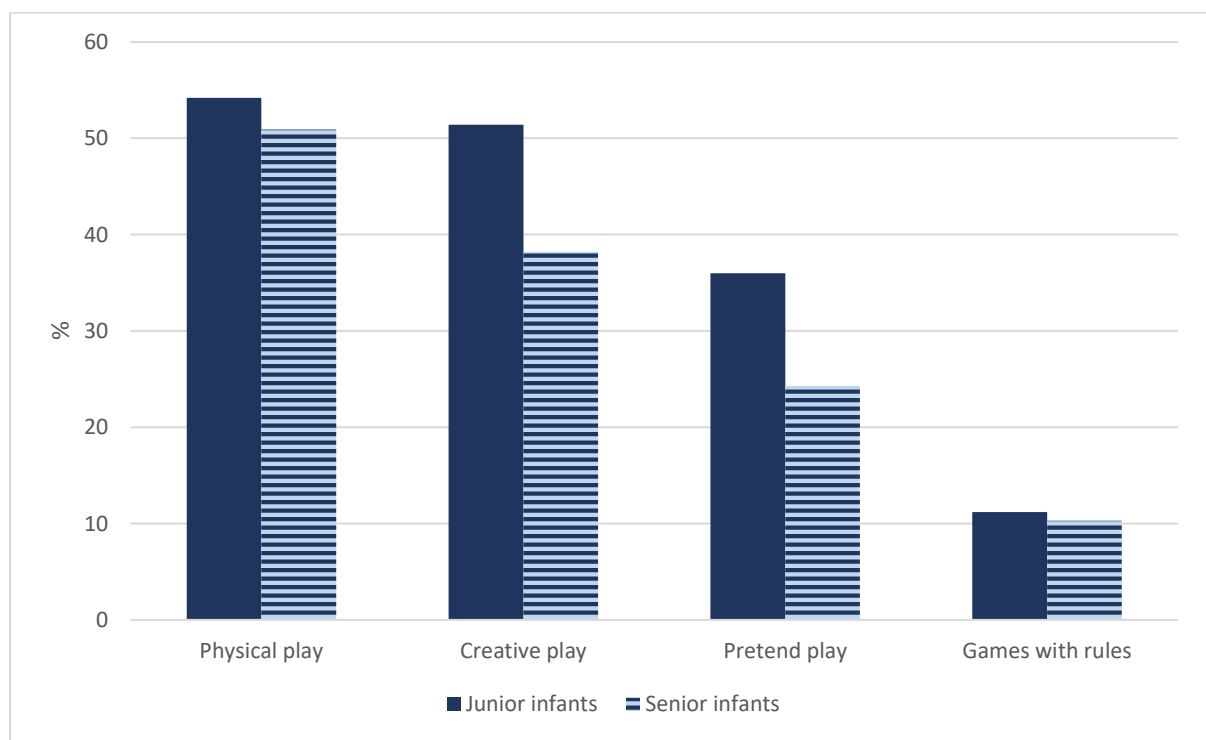
Class teachers were asked to indicate the frequency with which they used a wide variety of approaches in their classroom. The response categories comprised of: 'never or almost never', 'some days', 'most days' and 'every day'.

Figure 3.1 shows the proportion of children who engage in physical play, creative play (such as painting or using play-dough), pretend play (such as make-believe) and games with rules (such as board games) in the classroom context every day.

For junior infant groups, physical play and creative play are the most prevalent types, with around half of children engaging in these activities every day. Creative play is frequent for around one-third of those in junior infants and under one-quarter of those in senior infant classes. Playing games with rules (such as board games) is a much less prevalent activity.

Overall, play-based activities are used to a greater extent with junior infant groups, with a marked decline in the use of creative and pretend play over the transition to senior infants. The use of creative play is somewhat more common where classes are taught by more recently qualified teachers. At junior infant level, those in multi-grade classes engage in creative and pretend play less frequently than their counterparts in single-grade classes (39 per cent compared with 56 per cent for creative play; 27 per cent compared with 39 per cent for pretend play). In junior infant classes, there appears to be a greater use of creative play in Urban Band 1 DEIS schools than in other school types (63 per cent every day compared with 51 per cent in other schools). Pupils in boys' schools experience physical play more frequently than those in coeducational or girls' schools, with a greater difference by school type for junior infants. On the other hand, pupils in girls' schools engage in pretend play more frequently (for senior infants, 35 per cent do so every day compared with 20 per cent in boys' schools and 23 per cent in coeducational schools).

FIGURE 3.1 PROPORTION OF CHILDREN EXPERIENCING DIFFERENT FORMS OF PLAY IN THE CLASSROOM 'EVERY DAY', AS REPORTED BY TEACHERS

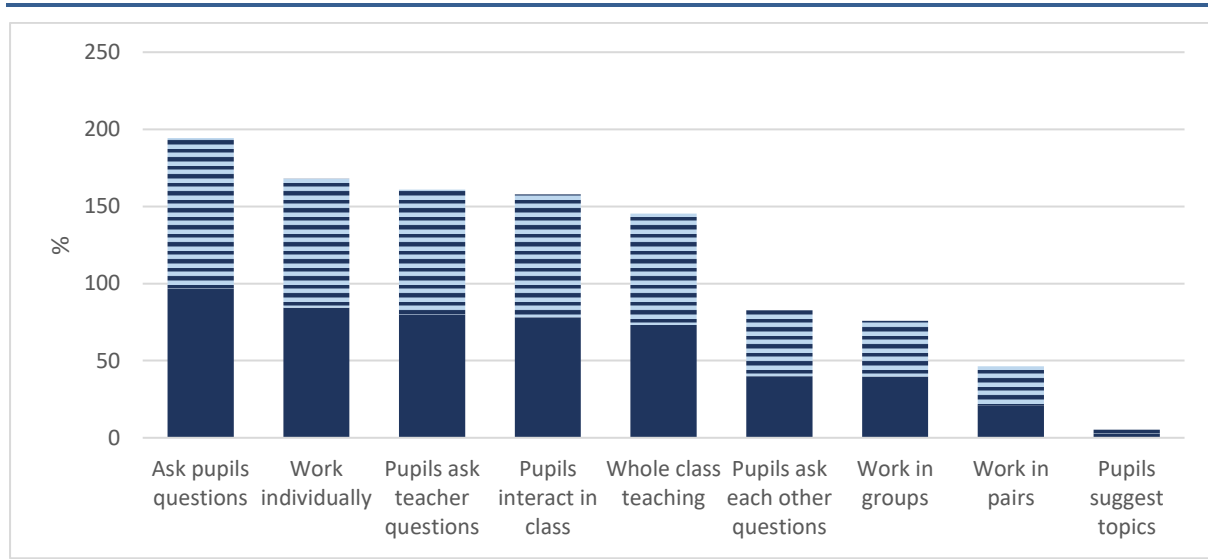


Source: *Growing Up in Ireland* study.

Figure 3.2 presents information on the type of grouping and nature of interaction between teachers and pupils in the classroom. In almost all cases, teachers ask children questions every day while pupils asking teachers questions is prevalent for four-fifths of children. Similarly, pupils interacting by taking turns and engaging in conversation is common in four-fifths of cases but pupils asking each other questions in class is less prevalent (happening every day for 40 per cent of children). The use of individual work and whole-class teaching emerges as the dominant pattern, with group work and pair work employed only in a minority of classrooms. Pupils rarely suggest topics to be covered in class, with this 'never or almost never' happening in four out of every ten cases.

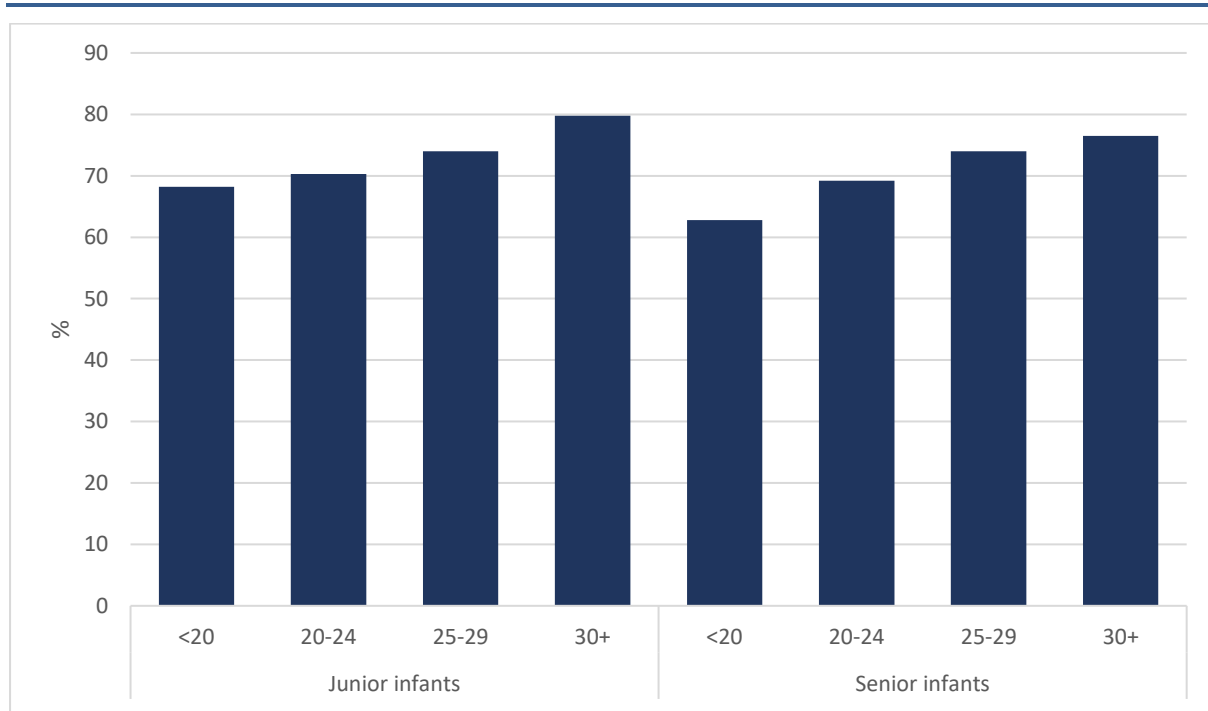
In contrast to the pattern for play-based activities, there are very few differences between junior and senior infant classes in the use of grouping and different forms of interaction (Figure 3.2). Pair work is more commonly used by more recently qualified teachers; for example, one-quarter of those qualified in the last five years use pair work with junior infants every day, compared with 16 per cent of those with more than 15 years' experience. A similar pattern is found for pupils asking teachers questions in class and pupils asking each other questions in class, both being less prevalent among more experienced teachers. The practice of pupils working individually is slightly more common in larger classes, though the difference is not sizeable. Group work is less commonly used in multi-grade classes at both junior and senior infants levels. Whole-class teaching is less commonly used by more experienced teachers (more than 15 years' experience) compared to other groups of teachers. It is also much less commonly used in multi-grade classes (62 per cent versus 78 per cent for junior infants; 62 per cent versus 76 per cent for senior infants), though the patterns nonetheless show that the majority of five-year-olds in multi-grade settings experience whole-class teaching on a daily basis. The use of whole-class teaching is significantly related to class size, being more prevalent in larger classes. This pattern is evident at both junior and senior infant class levels (see Figure 3.3).

FIGURE 3.2 PROPORTION OF CHILDREN EXPERIENCING DIFFERENT FORMS OF GROUPING AND INTERACTION IN THE CLASSROOM ‘EVERY DAY’, AS REPORTED BY TEACHERS



Source: *Growing Up in Ireland study.*

FIGURE 3.3 PROPORTION OF CHILDREN EXPERIENCING WHOLE-CLASS TEACHING ‘EVERY DAY’ BY CLASS SIZE, AS REPORTED BY TEACHERS

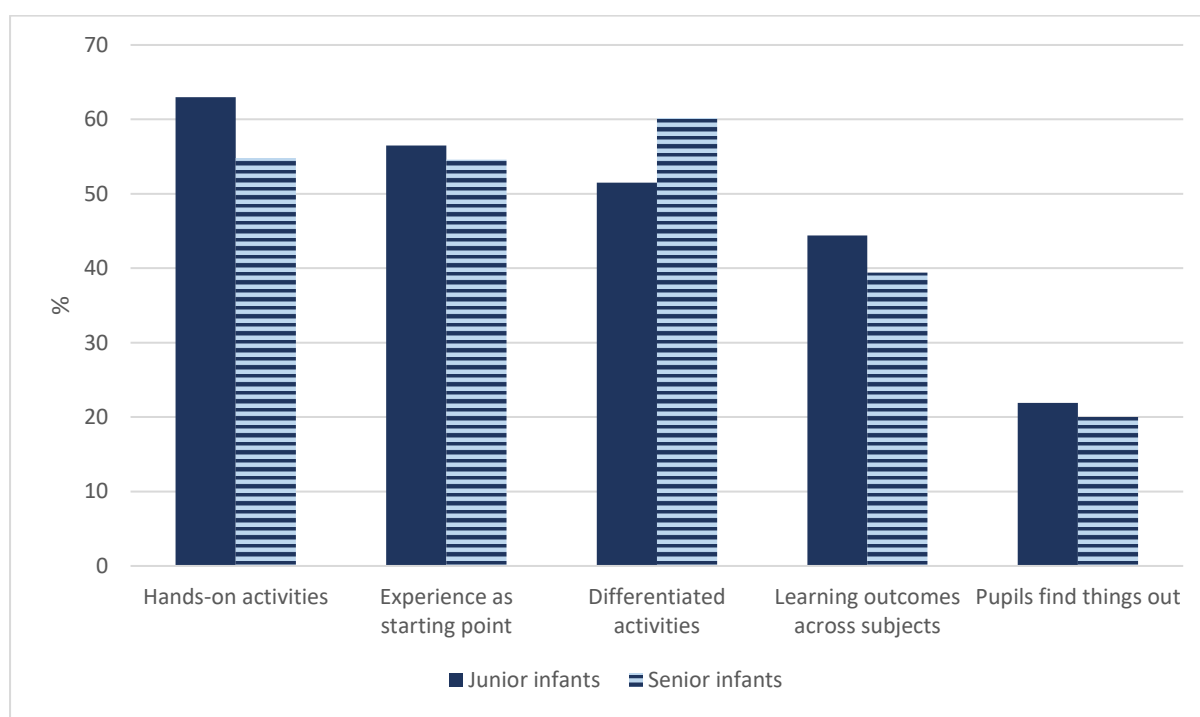


Source: *Growing Up in Ireland study.*

Over half of the children are given the opportunity to engage in hands-on activities every day (Figure 3.4). Around half have their experience used as a starting point for learning every day. Differentiated activities are also offered every day in around half of cases. The use of cross-curricular approaches (addressing learning outcomes across a number of subjects at the same time) was found to be frequent in four out of ten cases. Around one-fifth of children are in classes where pupils are encouraged to find things out for themselves every day. Differences between junior and senior infant class settings in these dimensions are fairly modest, but, in

keeping with the pattern for play-based learning, teachers appear to use hands-on activities to a greater extent with junior infants. There is a slightly greater use of differentiation in senior infant classes, perhaps reflecting teachers' greater familiarity with the different needs and abilities of the children at this stage. There is also a slightly greater use of differentiation in smaller classes. For junior infant classes, differentiated activities are more common in multi-grade than in single-grade settings (60 per cent compared with 48 per cent on a daily basis) but no such difference is evident at senior infant level. Girls' schools are somewhat less likely to use differentiation than coeducational or boys' schools. Hands-on activities are used less often by more experienced teachers in junior infant classes; the pattern is similar for senior infants, though the difference is less marked. Hands-on activities are also less common in multi-grade settings, with a much larger difference for junior infant classes (54 per cent compared with 66 per cent every day). For senior infant classes, hands-on activities are more frequently used in Urban Band 1 schools (73 per cent daily, compared with 45–55 per cent in other schools) but there is little variation by DEIS status for junior infant classes. Teachers in boys' schools were somewhat more likely to say that they used pupil experience as a starting point for learning than those in other school types.

FIGURE 3.4 PROPORTION OF CHILDREN EXPERIENCING DIFFERENT FORMS OF TEACHING AND LEARNING IN THE CLASSROOM 'EVERY DAY', AS REPORTED BY TEACHERS



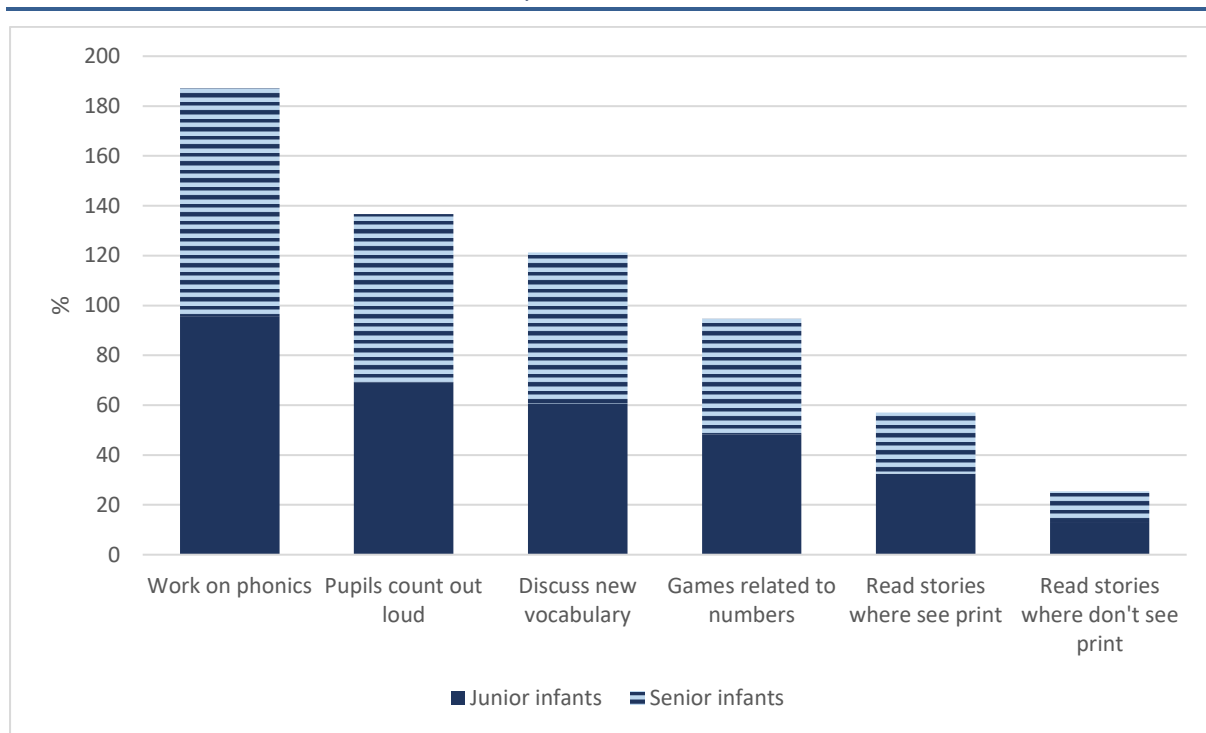
Source: *Growing Up in Ireland study.*

Figure 3.5 shows the use of different approaches to reading and maths in the classroom. By its nature, a self-completion survey can only collect quite broad information on the types of teaching methods used; it is unclear, for example, whether 'counting out loud' involves whole-class or group work. Nonetheless, the findings provide new information on the kinds of approaches used in early years

classes. Work on phonics and word sounds take place every day in almost all classes, while new or difficult vocabulary is often discussed in six out of ten cases. In over one-quarter of cases, teachers read stories to the children where they can see the print every day, while reading to them where they cannot see the print is less prevalent, at 13 per cent. Counting out loud was found to happen every day in 70 per cent of cases, while games related to numbers occur on a daily basis in around half of settings.

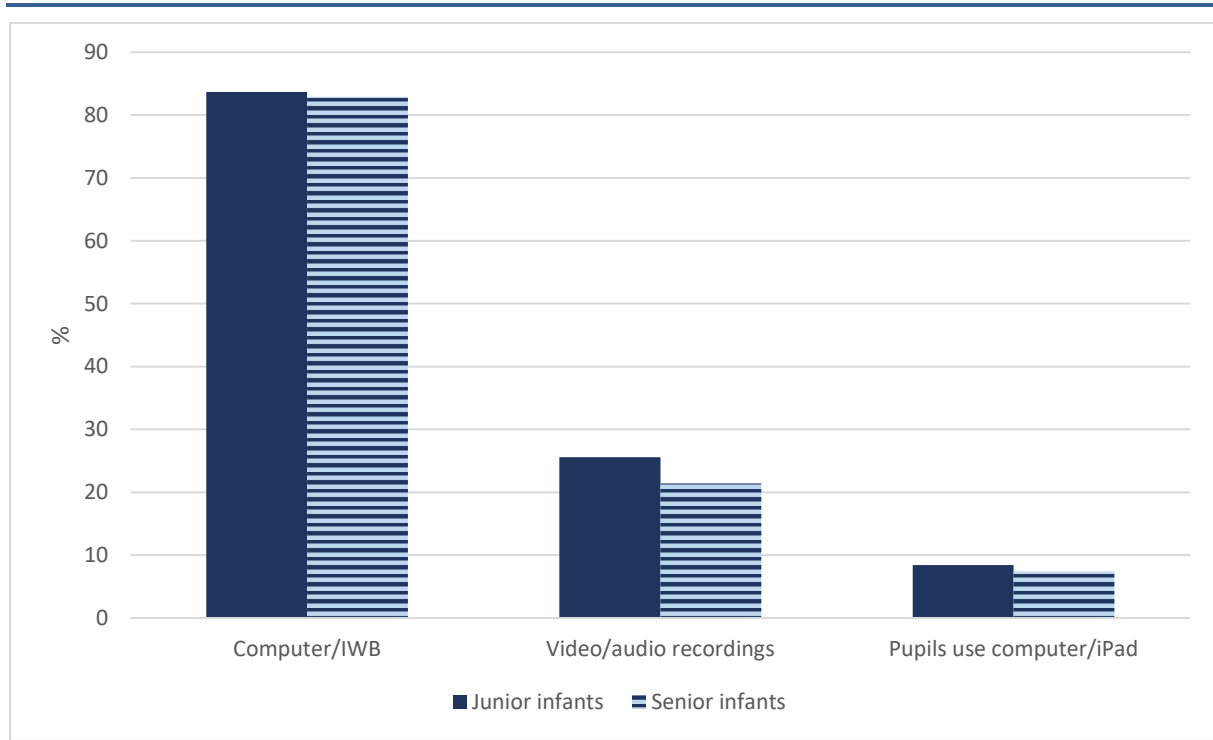
Few differences are evident between junior and senior infant classes along these dimensions. On closer unpacking, for single-grade classes, teachers are more likely to read to junior infants every day (at 35 per cent, compared with 25 per cent for senior infants). This difference is not apparent for multi-grade classes, reflecting the fact that teachers are catering to senior as well as junior infants (and possibly older class levels as well). In addition, teachers, especially at junior infant level, appear to read (showing the print) more frequently to groups of children who are expected to be less engaged with reading.¹² Thus, the frequency of reading to junior infant pupils is much higher in urban DEIS than in rural DEIS or non-DEIS schools (40–49 per cent compared with 25 per cent and 32 per cent respectively). Similarly, reading on a daily basis is more prevalent in boys' schools than in coeducational or girls' schools (45 per cent compared with 32 per cent and 26 per cent). Pupils counting out loud is much less common where they are taught by more experienced teachers and in multi-grade settings. For senior infant classes, pupils counting out loud is more common in urban DEIS schools than in rural or non-DEIS schools. Newly qualified teachers (with less than three years' experience) are more likely to use games relating to numbers or maths than other teachers, while multi-grade teachers are much less likely to use such games. Children attending boys' schools engage in these games more frequently than those in girls' or coeducational schools.

¹² This pattern is not evident for teachers reading to pupils where pupils cannot see the print.

FIGURE 3.5 PROPORTION OF CHILDREN EXPERIENCING DIFFERENT APPROACHES TO READING AND MATHS IN THE CLASSROOM 'EVERY DAY', AS REPORTED BY TEACHERS

Source: *Growing Up in Ireland* study.

Teachers were also asked about the frequency of using ICT and other equipment in the classroom. The teacher used a computer and/or interactive whiteboard every day in the majority (four-fifths) of cases (Figure 3.6). In contrast, usage of computer equipment by children themselves was found to be very rare for this age group, with four in ten children never or almost never using such equipment in class. The use of video or audio recordings is a common feature of classroom experience for only a minority of children. Few differences are found between junior and senior infant classes in the use of ICT.

FIGURE 3.6 PROPORTION OF CHILDREN IN CLASSES WHERE ICT IS USED ‘EVERY DAY’, AS REPORTED BY TEACHERS

Source: *Growing Up in Ireland study.*

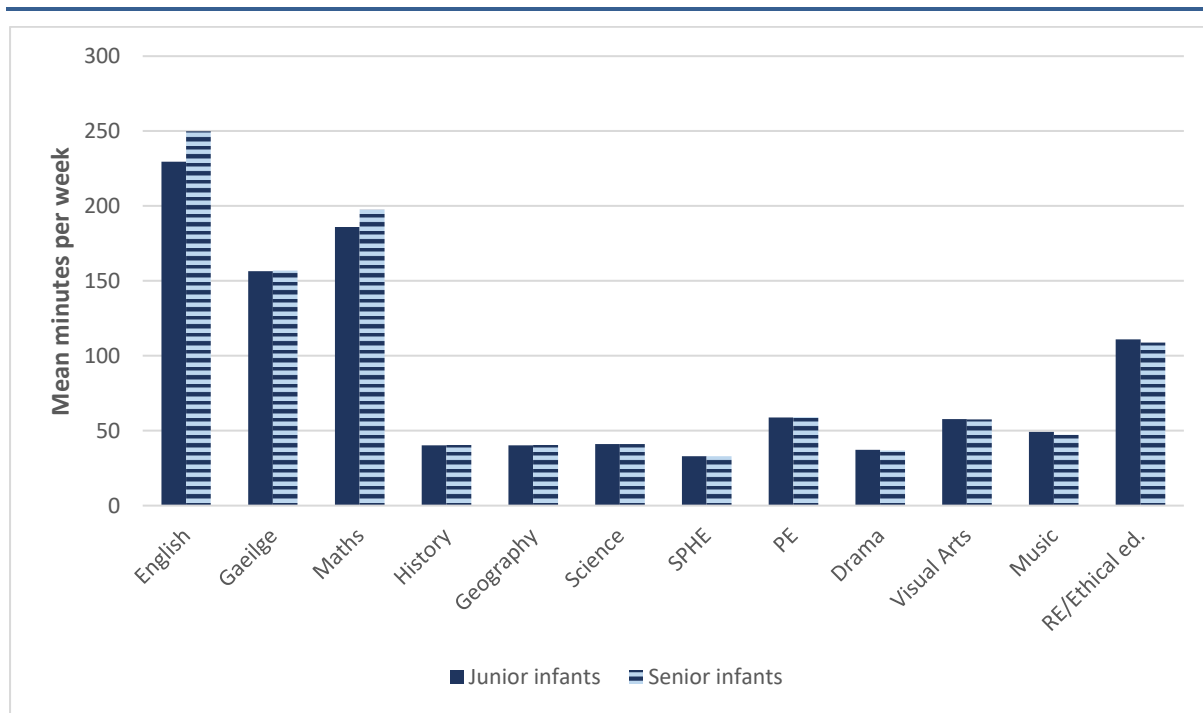
3.5 ALLOCATION OF TIME WITHIN THE CLASS

Classroom teachers were asked about the amount of time spent across the different subject areas of the primary curriculum. It was found that most time is spent on English, typically four hours per week, followed by maths (around three hours per week) (Figure 3.7). About 2.5 hours is spent on Gaeilge, and 100 minutes on religious/ethical education. Typically, one hour per week is spent on physical education and visual arts, with slightly less than an hour a week spent on the other subject areas. A slight increase was observed in the amount of time spent on English and maths between junior and senior infants, but little difference was found between the two class settings in other respects.

There is some variation by teacher experience, with more experienced teachers spending more time on English, art and music, though the differences involved are not large. Differences in time allocation are also evident by the DEIS status of the school. Teachers in Urban Band 1 schools spend significantly more time on English than other school types, with a difference of around half an hour per week on average, compared to teachers in non-DEIS schools (Figure 3.8). The trade-off is that these schools allocate less time to Gaeilge and to religious/ethical education. Rural DEIS schools appear to spend more time on Gaeilge per week than the other schools. Time spent on maths is somewhat higher in Urban Band 2 and rural DEIS schools but Urban Band 1 schools do not differ from non-DEIS schools in their maths time allocation. Single-sex schools devote somewhat more time to English (with boys' schools allocating more time than girls' schools) and slightly less time

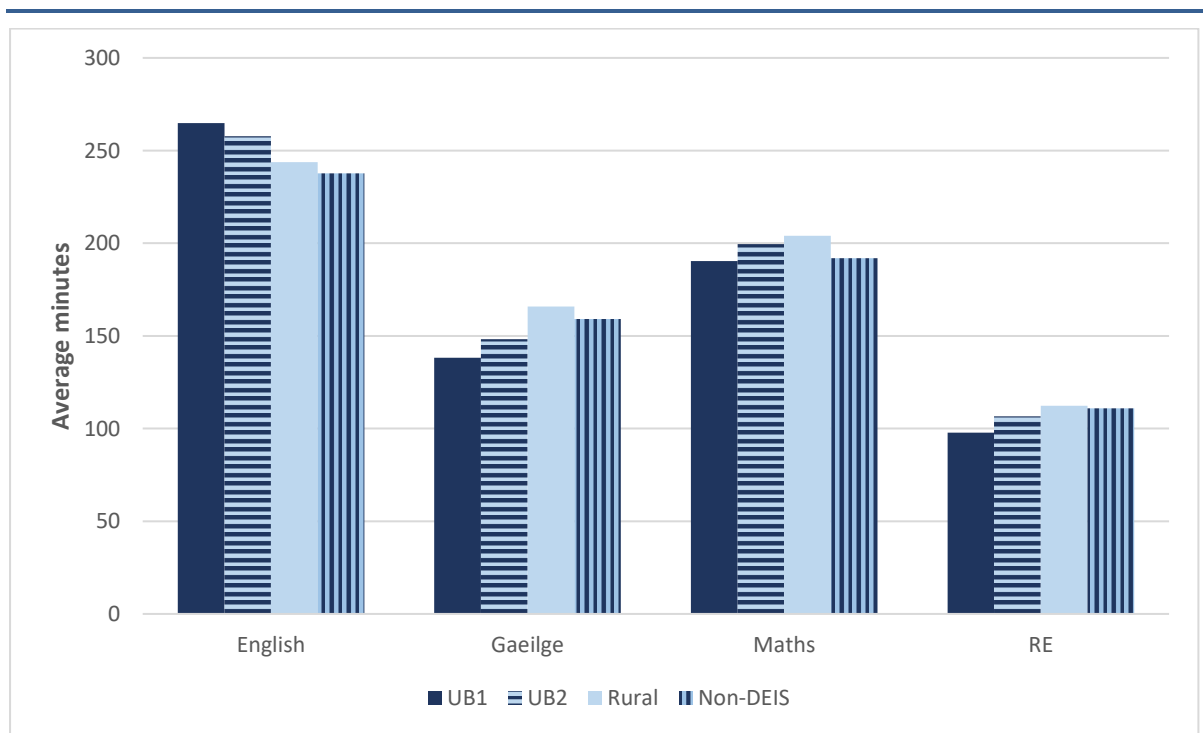
to Gaelige. Previous research found differences in time allocated to physical education by school gender mix for nine-year-olds (McCoy et al., 2012), but this issue is not apparent among this younger cohort. Teachers of multi-grade classes spend slightly more time on English and maths than single-grade teachers, though these differences are relatively small.

FIGURE 3.7 AVERAGE NUMBER OF MINUTES PER WEEK SPENT ON DIFFERENT SUBJECT AREAS IN JUNIOR AND SENIOR INFANT CLASSES



Source: Growing Up in Ireland study.

FIGURE 3.8 AVERAGE NUMBER OF MINUTES PER WEEK SPENT ON SELECTED SUBJECTS BY DEIS STATUS OF THE SCHOOL



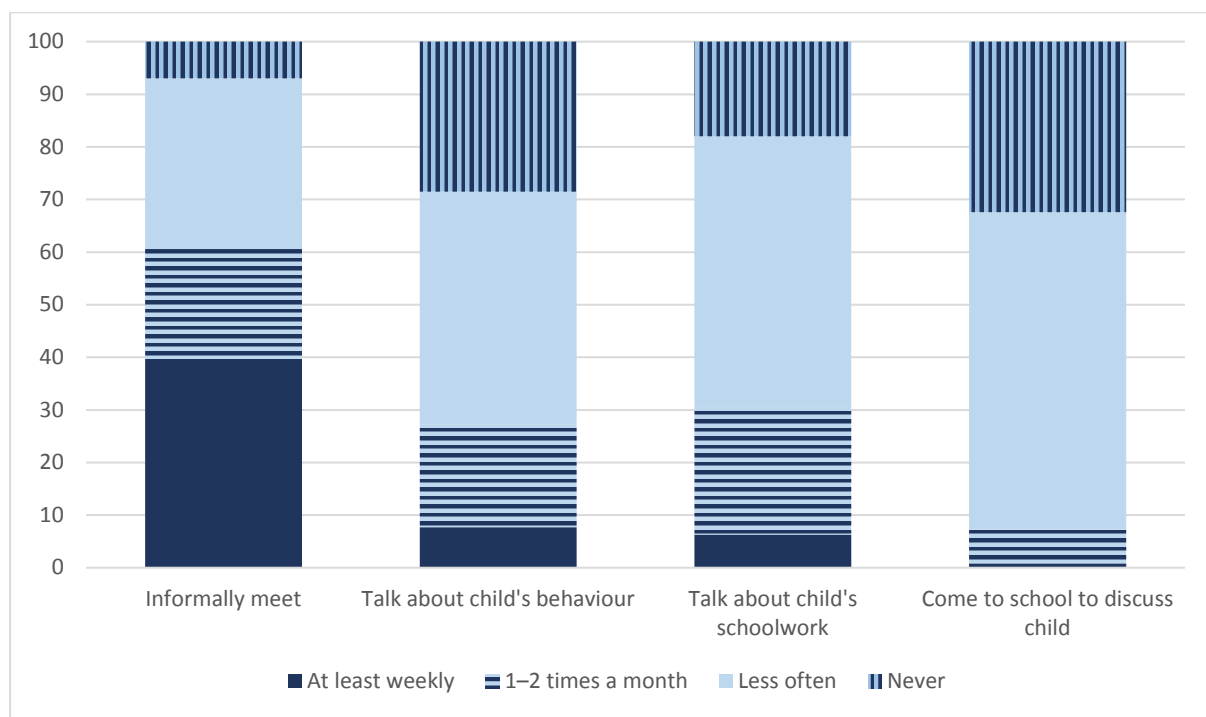
Source: Growing Up in Ireland study.

Teachers were also asked about the proportion of time in the classroom that was based around play-based activity. Around one-quarter of classroom time was described as being devoted to play-based learning (with a slightly higher rate in junior infant classes, at 27 per cent compared to 23 per cent); this is in keeping with the frequency of use of creative and pretend play discussed in the previous section. Less experienced teachers tend to allocate more time to play-based learning than their more experienced counterparts; 30 per cent of the newly qualified group (with less than three years' experience) devote one-third or more of classroom time to play-based learning, compared with 20 per cent of teachers with 20 years or more experience. No variation was apparent by class size, school social mix or gender mix. Teachers in multi-grade classes tended to spend somewhat less time on play-based activity.

3.6 HOME–SCHOOL COMMUNICATION

Information on parent–teacher communication was collected from both teachers and parents. The vast majority (95 per cent) of teachers reported that 'nearly all' parents of the children in their class attend parent–teacher meetings while 31 per cent reported that 'nearly all' parents attend other meetings organised by the school. In relation to the proportion of parents who would approach the teacher informally to discuss their child's progress, answers varied, with around one-quarter responses falling into each of the four answer categories: 'nearly all', 'more than half', 'less than half' to 'only a few'. According to the teacher data, levels of attendance at parent–teacher meetings are lower in Urban Band 1 DEIS schools (with 'nearly all' parents attending in 80 per cent of these cases, compared with 96 per cent in non-DEIS schools). Teachers highlight even greater variation by school social mix in attendance at other school events, with only a few parents attending such events in 18 per cent of Urban Band 1 schools, compared with 9 per cent in non-DEIS schools.

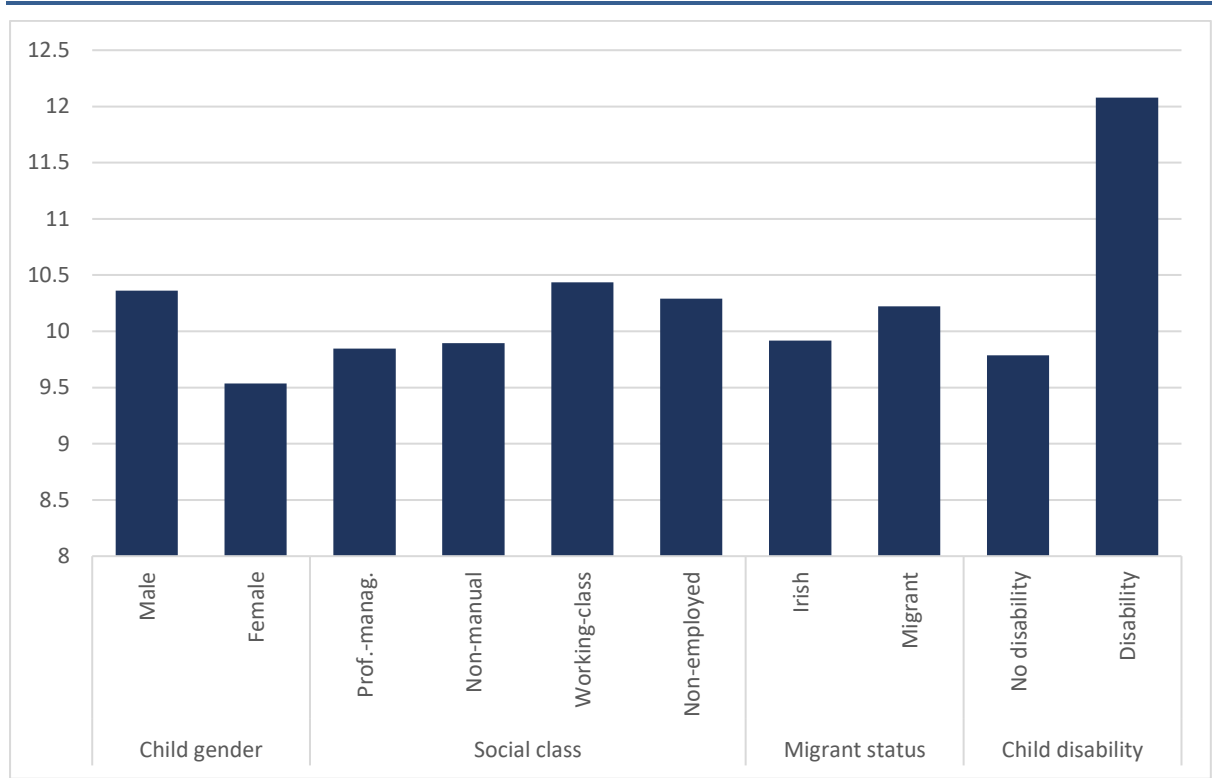
Teachers were also asked questions about their level of communication with the parents of the study child. Four different aspects of frequency of communication were captured: the frequency of informally meeting with the child's parent(s); the parent(s) talking to the teacher about the child's behaviour; the parent(s) talking to the teacher about the child's schoolwork; and the teacher asking the parent(s) to come to the school to discuss the child (Figure 3.9). Informal meetings were found to be relatively common, taking place at least once a week in four out of ten cases; only 7 per cent of families never have such meetings. The high level of informal contact is likely to reflect interaction while bringing the child to, or collecting them from, school. However, the survey did not ask about who brings the child to school. Meetings about the child's behaviour or schoolwork are much less prevalent, though over one-quarter of families have such meetings at least monthly. It is less common for a teacher to request parent(s) to come for a meeting, something that occurs regularly for only 7 per cent of children, with the main responses being less often than monthly (60 per cent) or never (32 per cent).

FIGURE 3.9 TEACHER REPORTS ON FREQUENCY OF CONTACT WITH PARENTS

Source: *Growing Up in Ireland* study.

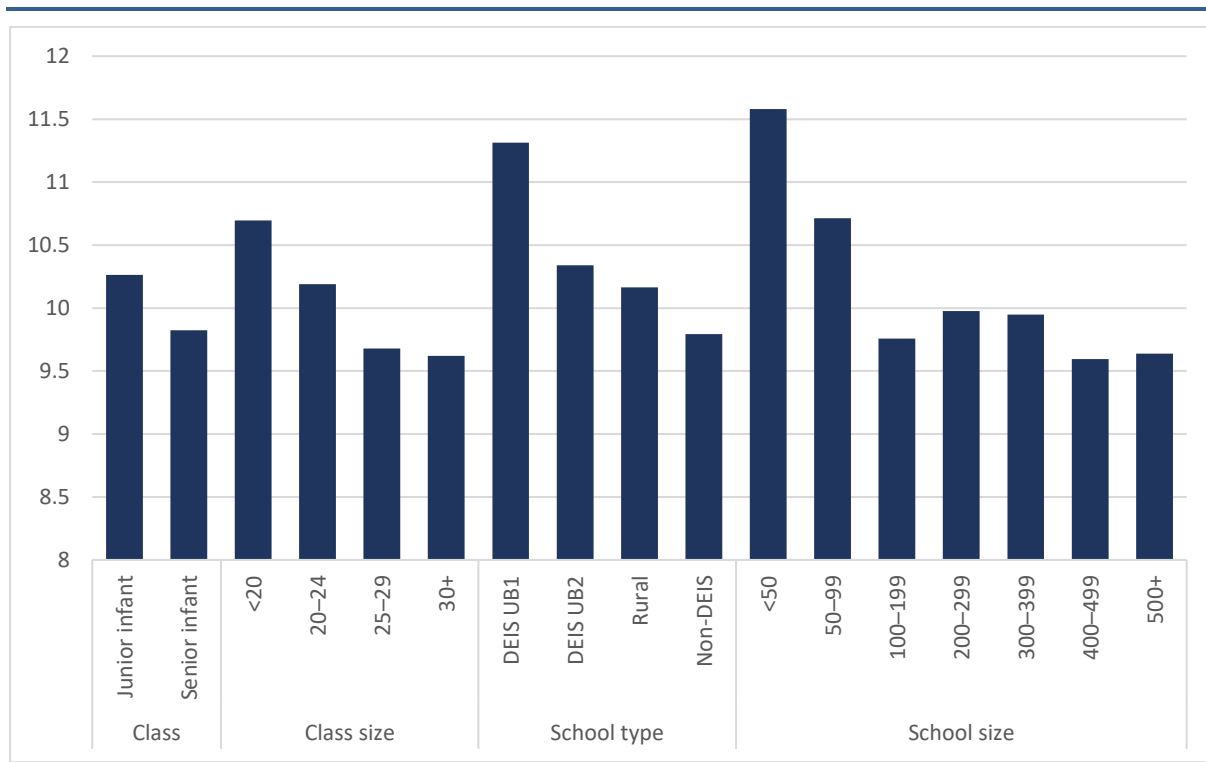
The four measures were combined to give an overall scale of parent–teacher communication.¹³ Some variation is evident by child and family characteristics (Figure 3.10). The parents of sons have somewhat more contact with teachers than the parents of daughters; this pattern is driven by more specific meetings regarding the child’s behaviour or schoolwork rather than by differences in informal meetings. There is a slight tendency for more frequent contact with working-class and non-employed families, again largely driven by the prevalence of more formal discussions. Migrant families have somewhat greater levels of contact with teachers across all dimensions, most likely reflecting their greater reliance on the school as a source of information because of the absence of insider knowledge on the education system (see Chapter 2). The largest difference is evident in relation to the parents of children with disabilities, who have much more frequent contact with teachers across all of the dimensions captured.

¹³ The scale had a reliability of 0.695.

FIGURE 3.10 SUMMARY MEASURE OF TEACHER CONTACT WITH PARENTS BY CHILD AND PARENT CHARACTERISTICS

Source: *Growing Up in Ireland* study.

Parent–teacher contact is also found to vary across different schools and classrooms (Figure 3.11). More frequent contact is evident where children are in junior infant classes than in senior infants, reflecting the emphasis on the settling-in process. Teacher–parent contact is greater in smaller classes (that is, those with 20 or fewer pupils), with lower levels found in classes of 25 pupils or more. Families with children attending DEIS Urban Band 1 schools have the most frequent contact with teachers; this pattern is not only driven by more formal discussions but also relates to much higher levels of day-to-day informal contact. As with class size, contact levels are greater in smaller schools (those with fewer than 100 students).

FIGURE 3.11 SUMMARY MEASURE OF TEACHER CONTACT WITH PARENTS BY CLASSROOM AND SCHOOL CHARACTERISTICS

Source: Growing Up in Ireland study.

Teachers viewed the majority of parents as supportive of their children’s learning, with 80 per cent stating they support learning ‘daily’ and a further 12 per cent mentioning this occurs ‘at least once a week’. Teachers described the majority (76 per cent) of mothers of the study children as ‘very interested’ in their children’s education. They described fathers as ‘very interested’ in just over half of cases, but this lower figure reflects a higher proportion of cases where teachers felt they ‘could not say’ or there was no father present (30 per cent). Not surprisingly, teachers viewed parents as more interested in their children’s education where they had had frequent communication with them.

Parents were themselves asked about how often they or their spouse or partner spoke in person to their child’s teacher. It should be noted that this question was asked during the home interview, at a stage when not all the children had yet started school. One in six said they speak to the teacher daily, while a further quarter do so at least weekly. A sizeable proportion – almost four in ten – said they speak to the teacher less often than monthly. There is a strong relationship between teacher and parental reports on the frequency of meeting. Non-employed families and mothers with lower levels of education are more likely to report meeting the teacher frequently. This may reflect the fact that these groups of parents are more likely to drop the child off to the school in the morning and collect them in the afternoon, which facilitates contact with the teacher. However, as discussed above, this cannot be discerned from the survey data. There is a slight discrepancy between the accounts of teachers and those of migrant parents, with

migrant parents themselves reporting lower levels of communication than Irish parents. This contrasts with the higher levels of contact with migrant parents reported by teachers. As with teacher reports, parents of children with a disability reported more contact with teachers. Variation by school type resembles the patterns reported by teachers, with greater parent–teacher contact in DEIS Urban Band 1 schools, small schools and small classes.

3.7 CONCLUSIONS

This chapter has explored the kinds of learning experienced by children in the early years of their primary education. It has shown that different forms of play, including physical, creative and pretend play, are common features of early years classrooms, as is the engagement of pupils in hands-on activities. However, the dominant teaching methods used centre on questioning, individual work and whole-class teaching, with relatively low levels of use of group and pair work. In terms of the amount of time spent on different subject areas, the greatest amount of time is spent on English (an average of four hours per week), followed by maths (at three hours per week).

At the time of the teacher survey, 72 per cent of the five-year-olds were in senior infant classes, with the remainder in junior infants. Teachers appear to tailor methods and activities to the class level, with a greater emphasis on play-based and hands-on activities in junior infant classes than at senior infants level. This is reflected in the slight increase found in the amount of time spent on English and maths in senior infant level, compared to junior infant level. Previous research on the experiences of nine-year-olds highlighted significant variation between different types of schools in the types of teaching methods used and in the time allocated to different subject areas (McCoy et al., 2012). Among five-year-olds, the greatest differences in learning experiences are apparent between junior and senior infant classes. However, there is evidence that teachers adapt their approaches to the profile of pupils, although not to the same extent as for older children. The findings point to variation in approaches by the social mix of the student population, with teachers in urban DEIS schools appearing to make greater use of methods to encourage pupil engagement while at the same time developing key skills in literacy and numeracy. Thus, teachers in urban DEIS schools place a greater emphasis on hands-on and play-based activities, as well as on reading to pupils and pupils counting out loud. Teachers in Urban Band 1 DEIS schools spend around half an hour more a week on English than those in other schools, with the time spent on Gaeilge and religious/ethical education reduced accordingly.

Some differences were found by the gender mix of the school, with a greater use of physical play and reading out loud found in boys' schools. In keeping with findings on nine-year-olds (McCoy et al., 2012), the size and structure of the class appears to act as a constraint on the use of certain activities. Thus, whole-class teaching is more prevalent in larger classes; in addition, junior infant children in

multi-grade classes experience fewer play-based and hands-on activities than their peers in single-grade settings.

Both teachers and parents report high levels of informal contact. Parent–teacher contact levels are higher for junior than for senior infants, where the child has a disability or SEN, in Urban Band 1 schools, and in smaller classes and schools. Working-class and non-employed families, as well as the parents of boys, tend to have more frequent contact with teachers, largely driven by specific meetings around the child’s behaviour or schoolwork.

CHAPTER 4

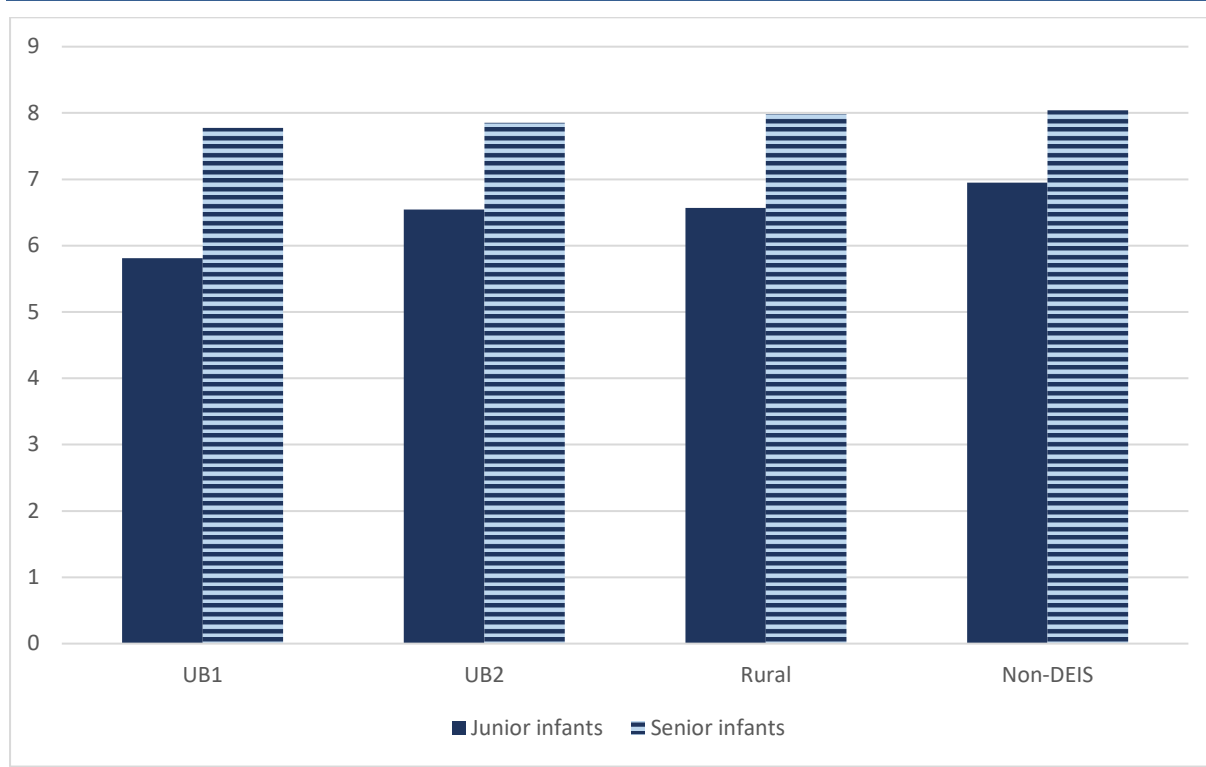
Children's experiences of the transition to primary school

4.1 INTRODUCTION

This chapter focuses on children's experiences and outcomes as they make the transition to primary education. The analyses adopt a multidimensional approach, drawing on the perspectives of parents and teachers as well as cognitive test scores for children. The *Growing Up in Ireland (GUI)* study is an age cohort study; thus, children in the sample are at different stages, depending on the month in which they were born and their parents' decision about when to send them to school (see Chapter 2). For this reason, the analyses generally distinguish between children in junior and senior infant classes as they will have had differential exposure to the classroom and school experiences described in Chapter 3. Section 4.2 examines the ease of settling into primary school, as reported by the child's mother. Section 4.3 looks at children's scores on the naming vocabulary subscale of the British Ability Scale (BAS), which was administered during the home visit. Section 4.4 looks at the nature of the relationship between the child and teacher along the dimensions of warmth and conflict, as reported by the teacher. Section 4.5 looks at the child's socio-emotional wellbeing, based on teacher reports employing the widely used Strengths and Difficulties Questionnaire (SDQ). Section 4.6 focuses on teacher ratings of the child's skills and competencies: dispositions and attitudes to school, language for communication and thinking, linking sounds and letters, reading and numbers.

4.2 SETTLING INTO SCHOOL

Mothers were asked to respond to a number of statements regarding their child's experience of settling into primary school. It should be noted that this information was collected during the home interview, so does not include data from approximately one-quarter of the children, who had not yet started school. In four-fifths of cases, mothers reported that their child looks forward to going to school and says good things about school on a frequent basis, that is, more than once a week (Figure 4.1). Only a small proportion of children (2–3 per cent) never say positive things about school, while a significant minority (13–18 per cent) were reported to be positive about school only occasionally (once a week or less often). Around three-quarters of five-year-olds do not complain about school or become upset and reluctant to go to school. Frequent complaining and upset is common among only a small number of children (4–5 per cent), while occasional complaining or upset is evident for around one-fifth of children.

FIGURE 4.1 PARENTAL PERCEPTIONS OF CHILD SETTLING INTO PRIMARY SCHOOL

Source: *Growing Up in Ireland study.*

The four measures were combined to give an overall scale of the ease of integration into primary school.¹⁴ Multilevel models were used to look at the factors associated with ease of transition, taking account of the clustering of children in different schools and classrooms (Table 4.1). This approach provides more accurate estimates of the variation between different types of schools and classrooms (teachers) in the ease of transition to primary school. The measure has been standardised to have a mean of zero and a standard deviation of one in order to allow for a comparison of effects for this outcome with other child outcomes discussed later in the chapter. Model 1 examines the relationship between child and family characteristics and ease of transition. Girls are seen as significantly more likely to be positively engaged with school, even at this early age, than boys (Table 4.1, Model 1). There are few differences by maternal education in Model 1 but such differences become more evident in Models 2 and 3; in other words, for children of equal cognitive and socio-emotional development, mothers with higher levels of education reported more difficult transitions. There is no significant variation by social class background in the transition process, controlling for maternal education. Lone mothers reported greater transition difficulties for their children, even taking account of the social class and educational profile of this group. Ease of transition is found to be greater among children in rural areas, while having more older siblings is associated with slightly greater transition difficulties (though the size of this effect is rather small). Children from migrant families have slightly easier transitions to primary school, a finding that is in stark contrast to results on

¹⁴ This scale has a reliability of 0.648.

the transition from primary to second-level education, where migrant teenagers experience greater difficulties (see Smyth, 2017). The greatest transition difficulties are found among children with disabilities, again resembling the pattern for primary-post-primary transitions.

TABLE 4.1 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH EASE OF TRANSITION TO PRIMARY SCHOOL

	Model 1	Model 2	Model 3
Constant	0.025	0.027	0.147
Female	0.250***	0.212***	0.211***
Social class:			
Professional	0.019	-0.004	0.014
Managerial	-0.003	-0.022	-0.007
Non-manual	-0.015	-0.018	-0.012
Skilled manual	-0.025	-0.024	-0.015
Non-employed	0.005	0.014	0.012
(Ref.: Semi/unskilled)			
Mother's education:			
Leaving Certificate	-0.002	-0.019	-0.013
Post-secondary	-0.081	-0.105*	-0.098±
Tertiary	-0.098*	-0.143**	-0.133**
Postgraduate degree	-0.081	-0.150*	-0.140*
(Ref.: Lower secondary or less)			
Number of older siblings	-0.029*	-0.028*	-0.028*
Lone parent family	-0.175***	-0.174***	-0.171***
Migrant family	0.078*	0.112**	0.117**
Living in an urban area	-0.102***	-0.103***	-0.103***
Child has disability	-0.452***	-0.378***	-0.385***
Positive parent-child relationship at 3		0.022**	0.022**
Parent-child conflict at 3		-0.010**	-0.010**
Home learning environment at 3		0.010***	0.010***
Naming vocabulary score at 3		0.000	0.000
Picture similarity score at 3		-0.001	-0.001
SDQ Total Difficulties at 3		-0.013***	-0.014***
SDQ Prosocial subscale at 3		0.006	0.006
Type of care at 3:			
Relative		0.005	0.001
Non-relative		0.048	0.049
Centre-based		0.257	0.049
Other		0.405	0.250
(Ref.: Parents)			
Age starting school		-0.015**	-0.015*
DEIS status:			
Urban Band 1			
Urban Band 2			0.125*
Rural DEIS			-0.002
(Ref.: Non-DEIS)			0.020
Gender mix:			
Boys			0.009
Girls			0.020
(Ref.: Coed)			
School size:			
50-99			-0.124
100-199			-0.165*
200-299			-0.195**
300-399			-0.110
400-499			-0.165*
500+			-0.141*
(Ref.: <50)			
Schools	1,954	1,954	1,954
Classes (teachers)	2,701	2,701	2,701
N	5,694	5,694	5,694

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

Model 2 looks at whether a child's preschool experiences are associated with how they settle into primary education. Transitions are somewhat easier where mothers report a close relationship with their child (when they are three years) and somewhat more difficult where the relationship is more conflictual. Children who experienced a more stimulating home learning environment at the age of three settle into school more readily, though the difference is rather small. Cognitive skills (in terms of naming vocabulary and non-verbal reasoning) at the age of three are not associated with the later ease of transition. On the other hand, those who had greater socio-emotional difficulties at that age have greater transition difficulties later. Contrary to expectations, the type of childcare experienced at three years is not related to the ease of transition to primary school. However, it is worth noting that almost all of these children had taken part in the funded preschool year and so had experienced a centre-based preschool setting. Somewhat surprisingly, all else being equal, children who are older on starting school are found to have greater transition difficulties, though the difference is small. This may reflect the decision of parents to postpone school entry for children who are not deemed to be 'ready' for the new environment.

Model 3 looks at whether transition difficulties vary across different types of school, taking account of child and family characteristics. Teacher characteristics are not explored here because it cannot be assumed that the child has the same teacher at the time of the parental interview as later in the year. Interestingly, children attending DEIS (Delivering Equality of Opportunity in Schools) Urban Band 1 schools are reported to have an easier transition to primary school than might be expected given their other characteristics. This may reflect the particular approach adopted in DEIS schools to easing the transition. No variation is found by the gender mix of the school. There is some evidence that those in smaller schools (less than 100 pupils) settle into school more readily than those in larger schools.

Additional analysis (not shown here) examined the relationship between ease of transition and the different activities parents had carried out with their children in preparation for starting school. There is no significant relationship between settling into school and the parents having attended an information meeting, visited the school or sought advice from family, neighbours or friends about the process. In contrast, the children of mothers who reported practising reading, letters or numbers with the child have fewer transition difficulties.

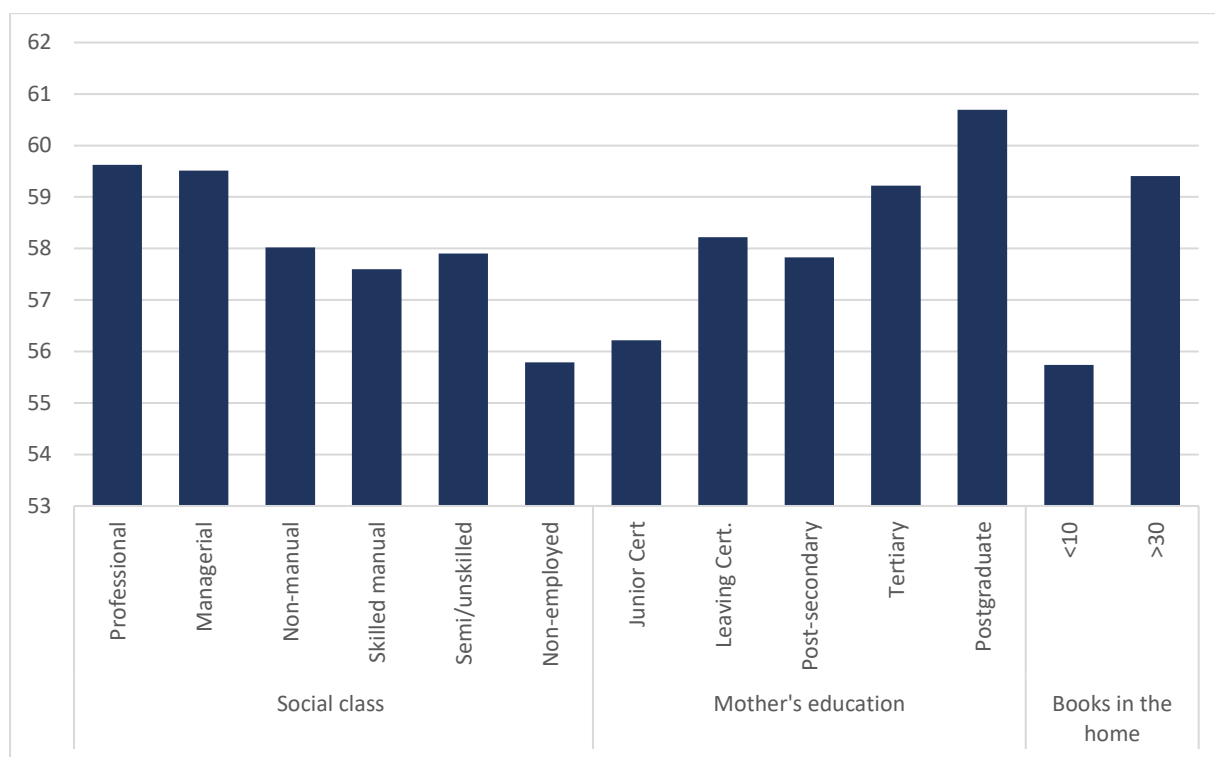
4.3 VOCABULARY SKILLS AMONG FIVE-YEAR-OLDS

Chapter 2 described differences in children's vocabulary skills at the age of three. A similar age-appropriate test, the BAS vocabulary test, was administered to them two years later, during the home visit. As a result, the test captured skill development when children were at very different stages – around one-quarter

had yet to start school while three-quarters were towards the end or after the end of their first year at school.

Figure 4.2 shows the raw test scores by family social background. As at three years, five-year-olds from professional/managerial families have better vocabulary skills, while those from non-employed households achieve lower test scores. The gradient by mother's education is more pronounced than that for social class, with a larger developmental gap between children whose mothers have lower secondary education or less and those whose mothers have postgraduate education. Children's vocabulary development at five years reflects the home learning environment they experienced at an earlier age, with better vocabulary skills among children whose parents did more home learning activities (such as reading and saying rhymes) with them (pattern not shown here) and where there were more children's books in the home (see also McGinnity et al., 2017).

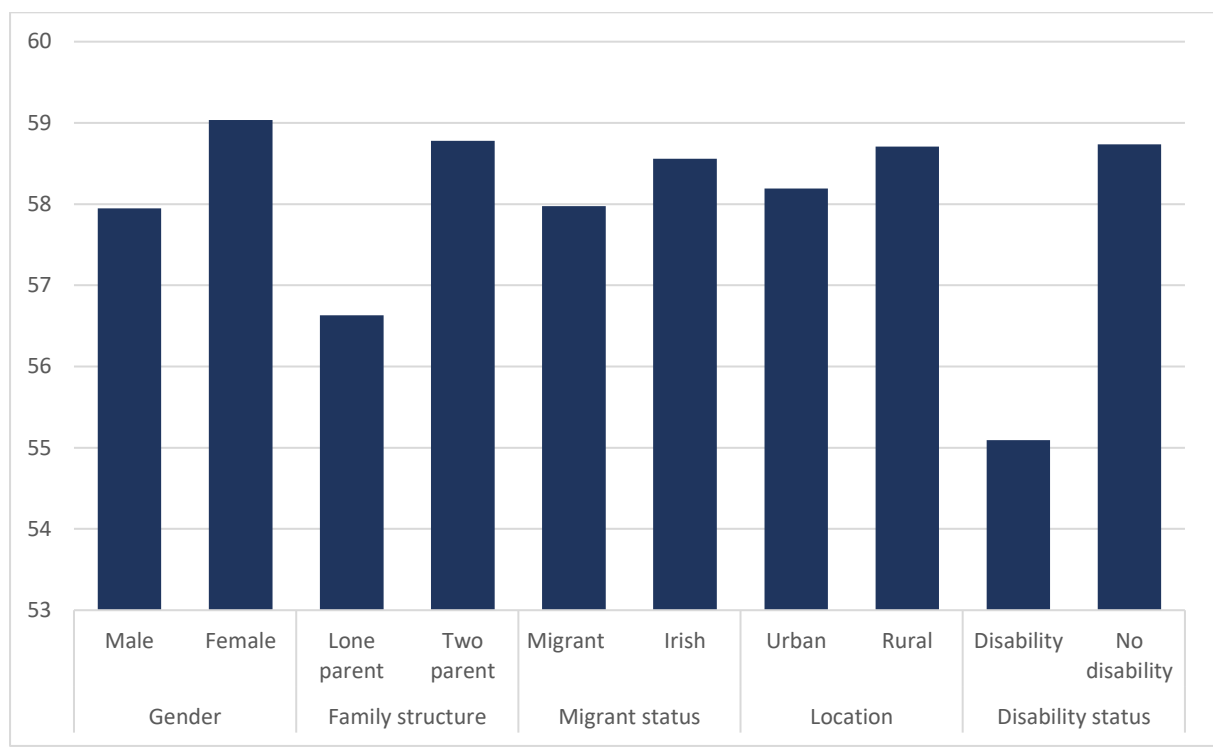
FIGURE 4.2 NAMING VOCABULARY (BAS) AT AGE 5 BY SOCIAL BACKGROUND CHARACTERISTICS



Source: *Growing Up in Ireland* study.

As at the age of three, girls have better vocabulary skills than boys (Figure 4.3). Children from lone parent families have somewhat lower test scores than those from two-parent families; the extent to which this is due to differences in social class and parental education is investigated below. Children in rural areas have slightly higher test scores than those in urban areas. As at the age of three, there is a gap in vocabulary skills between children with disabilities and their peers.

FIGURE 4.3 NAMING VOCABULARY (BAS) AT AGE 5 BY CHILD AND FAMILY CHARACTERISTICS



Source: Growing Up in Ireland study.

TABLE 4.2 ORDINARY LEAST SQUARES REGRESSION MODELS OF FACTORS ASSOCIATED WITH THE FIVE-YEAR-OLD'S BAS NAMING VOCABULARY TEST SCORES

	Group tested before school entry	Group tested after school entry
Constant	31.678	43.775
Female	-0.533	0.605*
Social class:		
Professional	0.041	-0.252
Managerial	0.042	0.214
Non-manual	0.883	-0.834
Skilled manual	-0.113	-0.640
Non-employed	-2.112±	-0.717
(Ref.: Semi/unskilled)		
Mother's education:		
Leaving Certificate	0.578	0.975*
Post-secondary	-0.105	0.276
Tertiary	0.884	0.799*
Postgraduate degree	1.652±	1.753**
(Ref.: Lower secondary or less)		
Number of older siblings	-0.339	-0.398***
Lone parent family	-0.049	-1.130**
Migrant family	0.323	1.059**
Living in an urban area	0.178	-0.553*
Child has disability	-1.895*	-0.904±
Positive parent-child relationship	0.281*	-0.027
Parent-child conflict	0.103*	0.012
Home learning environment at 3	-0.074*	-0.013
Children's books in the home (at age 3):		
10-20	-0.772	0.373
21-30	-0.521	0.184
30+	0.475	0.694
Naming vocabulary score at 3	0.092***	0.080***
Picture similarity score at 3	0.255***	0.236***
SDQ Total Difficulties at 3	-0.153*	-0.079*
SDQ Prosocial subscale at 3	0.035	-0.072
Type of care at 3:		
Relative	0.114	0.552
Non-relative	-0.641	0.790±
Centre-based	-0.539	0.483
(Ref.: Parents)		
N	2,630	5,712

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

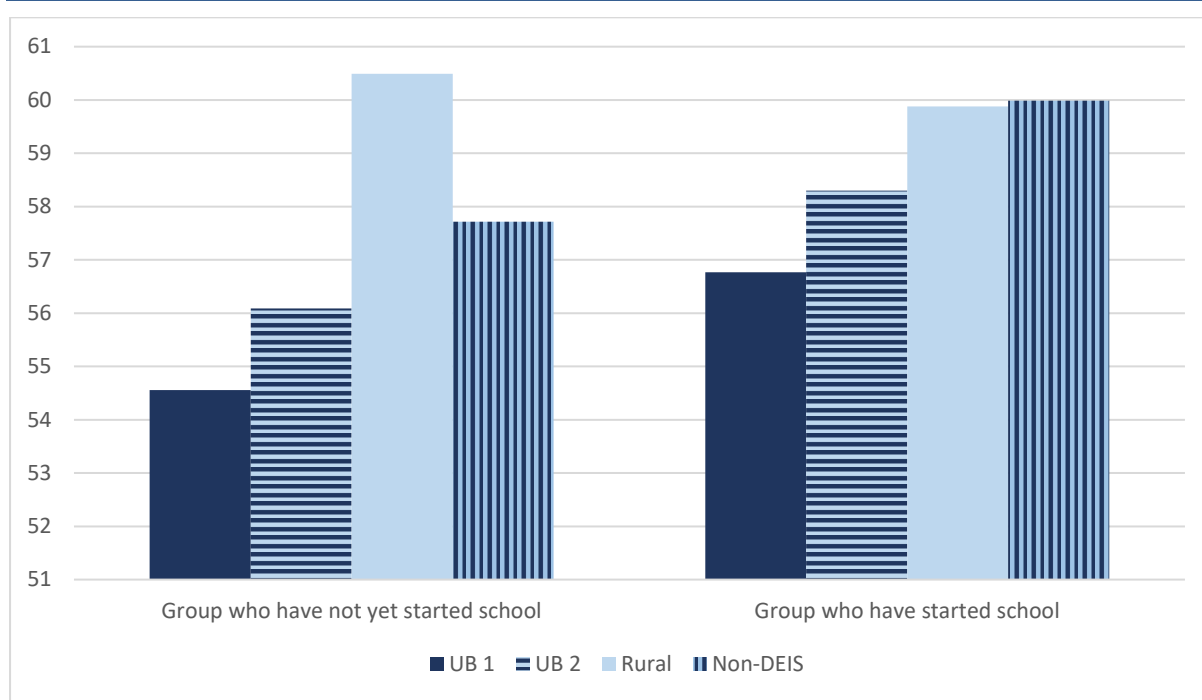
Figures 4.2 and 4.3 present differences in vocabulary skills by each of the family and child characteristics, considered separately. Multivariate modelling provides a more accurate way of assessing which factors have the greatest effect when other characteristics are taken into account. Given that a year at school will have made a difference to children's vocabulary development, Table 4.2 looks at the factors associated with these skills, presenting data separately for those who had already started school and those who had not yet started. Some of the characteristics have different effects for the group tested before school entry and those tested when they had already started school. This reflects two factors: the group who had not yet started school is smaller so significant effects will be harder to detect; and

those who have delayed school start are distinctive in other ways (see Chapter 2). The models presented control for cognitive skills development at age three, so can be interpreted as reflecting progress relative to this earlier time-point.

Among those tested after school entry, girls achieve higher vocabulary test scores than boys, even taking account of their better verbal skills at age three. No significant gender difference is found among the pre-entry group; it may be that because girls tend to be sent to school earlier than boys (see Chapter 2), those girls who start later have other characteristics that are not captured in this model. The children of more educated mothers have better vocabulary skills (see Figure 4.2) but also make more progress relative to their earlier skill development. Lower vocabulary scores are found among children from lone parent families, those who have more older siblings and those living in urban areas (for those who have started school only). Migrant children are found to have made greater progress relative to their (English) vocabulary skills at the age of three, with a much larger effect for those who have started school. In other words, a good deal of the gap in language skills between migrant and Irish children found at the age of three closes in the subsequent two years, with school start appearing to prompt a significant gain in English language skills. Children with disabilities have poorer vocabulary skills, even relative to the achievement gap evident when they were three. The larger gap found among those who have not yet started school suggests that parents delay school entry for those with the kinds of disabilities that hamper children's development to a greater extent (see Chapter 2).

The effects of home learning activities and books in the home are mediated by early skills development. In other words, children have better vocabulary skills at age three where they experience a more stimulating learning environment, an advantage they maintain at five years. Not surprisingly, children with better verbal and non-verbal skills at the age of three have better verbal skills two years later. However, it is worth noting that vocabulary skills at the two time-points are not very strongly related.¹⁵ This reflects two factors. Firstly, some children develop language skills at different stages, so many will have 'caught up' by five years. Secondly, a significant proportion of children do fairly or very well on the vocabulary test at the age of five, so there is not as much variation in the spread of scores as there is at three years. Children who experience socio-emotional difficulties at the age of three have poorer verbal skills at the age of five. The type of preschool care experienced is not highly related to verbal skills at five years, though scores improve between three and five somewhat more for those who have been cared for by a non-relative (consistent with the findings of McGinnity et al., 2015).

¹⁵ The correlation between vocabulary skills test scores at three and five years is 0.2, on a scale of zero (not related) to one (perfectly related).

FIGURE 4.4 NAMING VOCABULARY (BAS) AT SCHOOL ENTRY BY DEIS STATUS OF THE SCHOOL

Source: *Growing Up in Ireland study.*

The social gradient in children’s language development means that children start different types of school with different sets of skills, which may advantage or disadvantage them in adjusting to the new school setting, an issue explored in the remainder of the chapter. Figure 4.4 shows vocabulary test scores for those attending a DEIS school at the time of the test or who subsequently go on to attend a DEIS school. It is clear that the intake to urban DEIS schools, especially those in the more deprived Urban Band 1 schools, has poorer vocabulary skills at this early stage. In contrast, children who enter rural DEIS schools have verbal skills that are equivalent to, if not higher than, those in non-DEIS schools.¹⁶ The extent to which attending a school with a concentration of children from disadvantaged backgrounds influences other aspects of the transition is explored in the remainder of the chapter.

4.4 TEACHER–PUPIL RELATIONSHIP

Classroom teachers were asked to complete the Pianta Teacher–Student Relationship Scale, which involves rating each of the study children they taught in terms of a number of statements, with categories ranging from ‘definitely applies’ to ‘definitely does not apply’. Two subscales were formed on the basis of these responses. Closeness reflected responses to the following statements.

- I share an affectionate, warm relationship with this child.

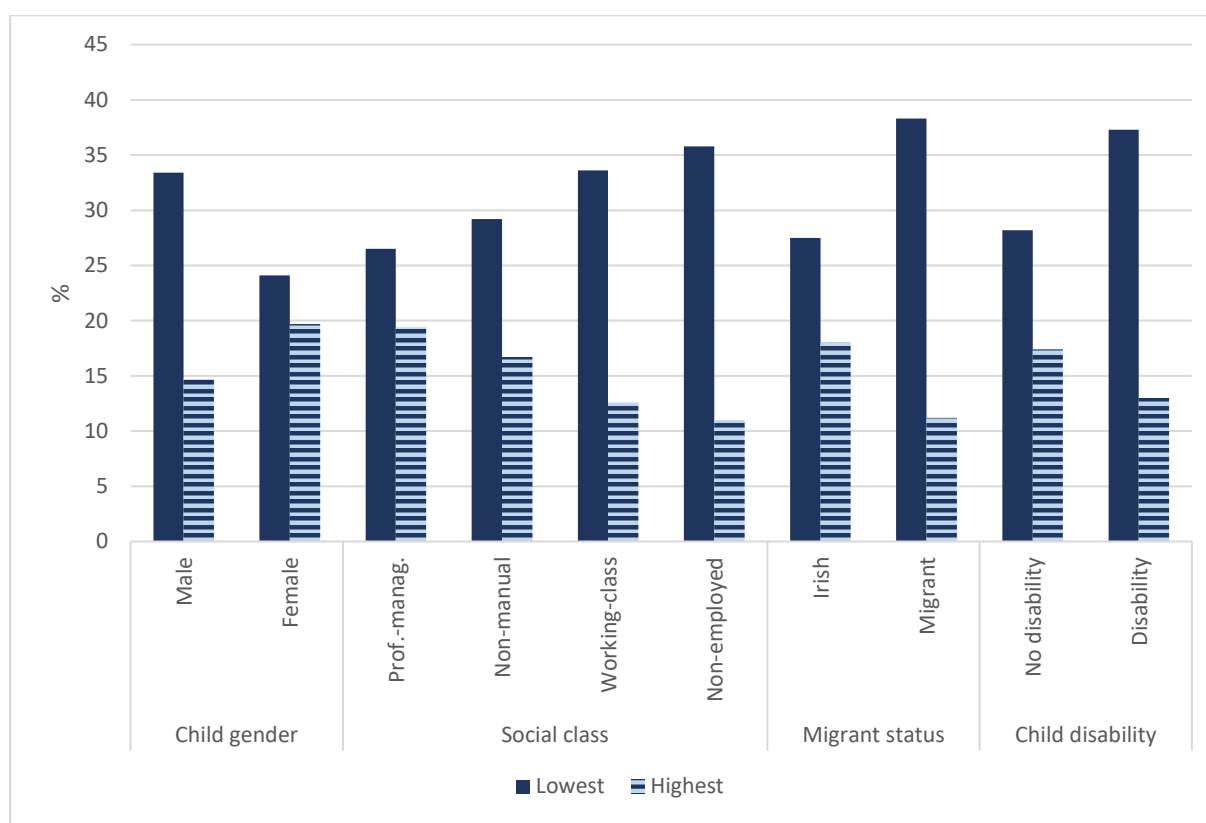
¹⁶ These patterns are intended to show differences between schools in the starting point of their pupils. The scores of those tested before school entry and the group tested after starting school should not be interpreted as comparing like with like, as age at starting school differs significantly by child and family characteristics (see Chapter 2).

- If upset, this child will seek comfort from me.
- This child values his/her relationship with me.
- When I praise this child, he/she beams with pride.
- The child spontaneously shares information about himself/herself.
- It is easy to be in tune with what this child is feeling.
- This child openly shares his/her feelings and experiences with me.

The degree of conflict reflected responses to the following statements.

- This child and I always seem to be struggling with each other.
- This child is uncomfortable with physical affection or touch from me.
- This child easily becomes angry at me.
- This child remains angry or is resistant after being disciplined.
- Dealing with this child drains my energy.
- When this child is in a bad mood, I know we're in for a long and difficult day.
- This child is sneaky or manipulative with me.

For descriptive purposes, ratings of closeness and conflict were grouped into four categories. Overall, teachers who report higher levels of closeness to a child tend to report lower levels of conflict with them, and vice versa. However, it is worth noting that a small group of children, 5 per cent of the study cohort, fall into both the low closeness and low conflict groups, so may be somewhat marginalised within the class group.

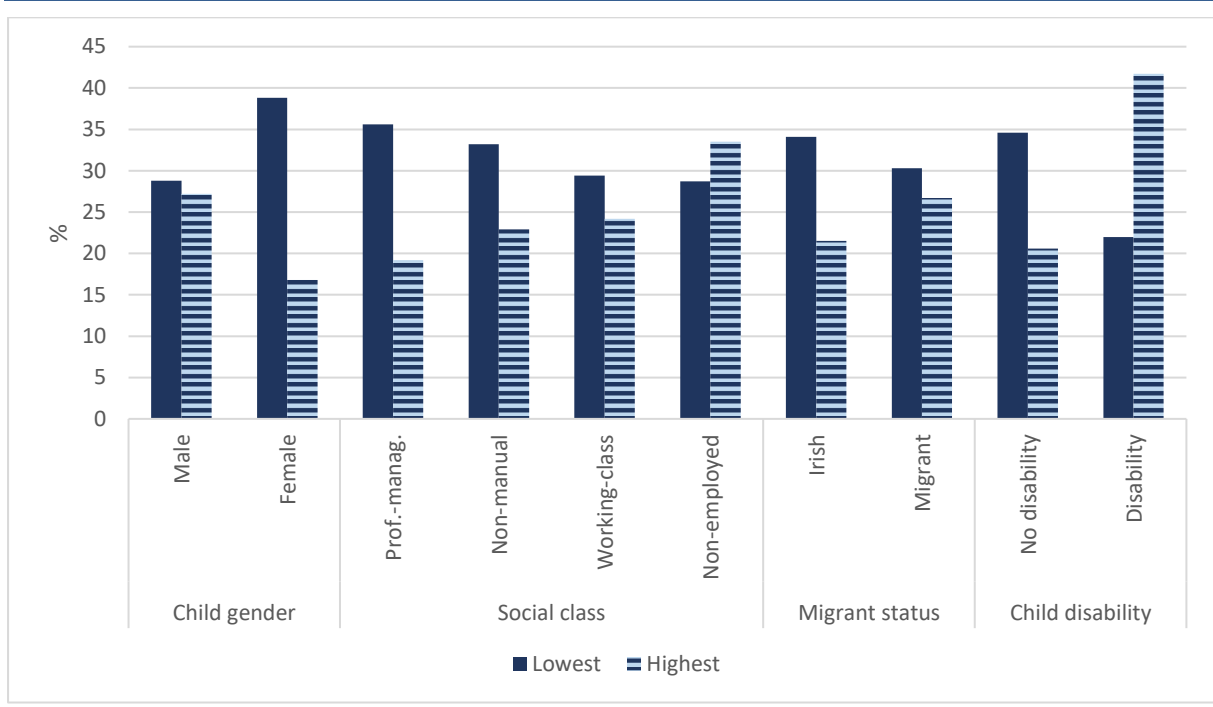
FIGURE 4.5A TEACHER–CHILD CLOSENESS (HIGHEST AND LOWEST QUARTILES) BY CHILD CHARACTERISTICS

Source: Growing Up in Ireland study.

Figure 4.5a shows the proportions falling into the highest and lowest levels of closeness by child characteristics, while Figure 4.5b shows comparable information on teacher–child conflict levels. The quality of relationship is found to vary significantly by gender, social background, migrant status and whether the child has a disability. Overall, these differences are greater in relation to ‘poorer’ outcomes, that is, higher conflict and lower closeness. Boys are much more likely to be less close to their teacher and have more conflict with them. Children from working-class and non-employed families have poorer relationships with their teachers than their middle-class peers, with those from non-employed households having particularly high levels of conflict with their teachers. The children of immigrants have less close and more conflictual interaction with classroom teachers. Even at this early stage of their schooling, children with disabilities have more conflict with their teachers and are less close to them.¹⁷ Type of disability makes a significant difference; children with physical disabilities are not very different to their non-disabled peers but those with emotional and learning disabilities are twice as likely to fall into the high conflict group.

¹⁷ The number of missing cases for the total scales of closeness and conflict is greater in relation to more disadvantaged children and those with SEN (see Chapter 1). As a result, the figures presented here may represent a slight underestimate of differences in the quality of teacher–student relationships for these groups of children.

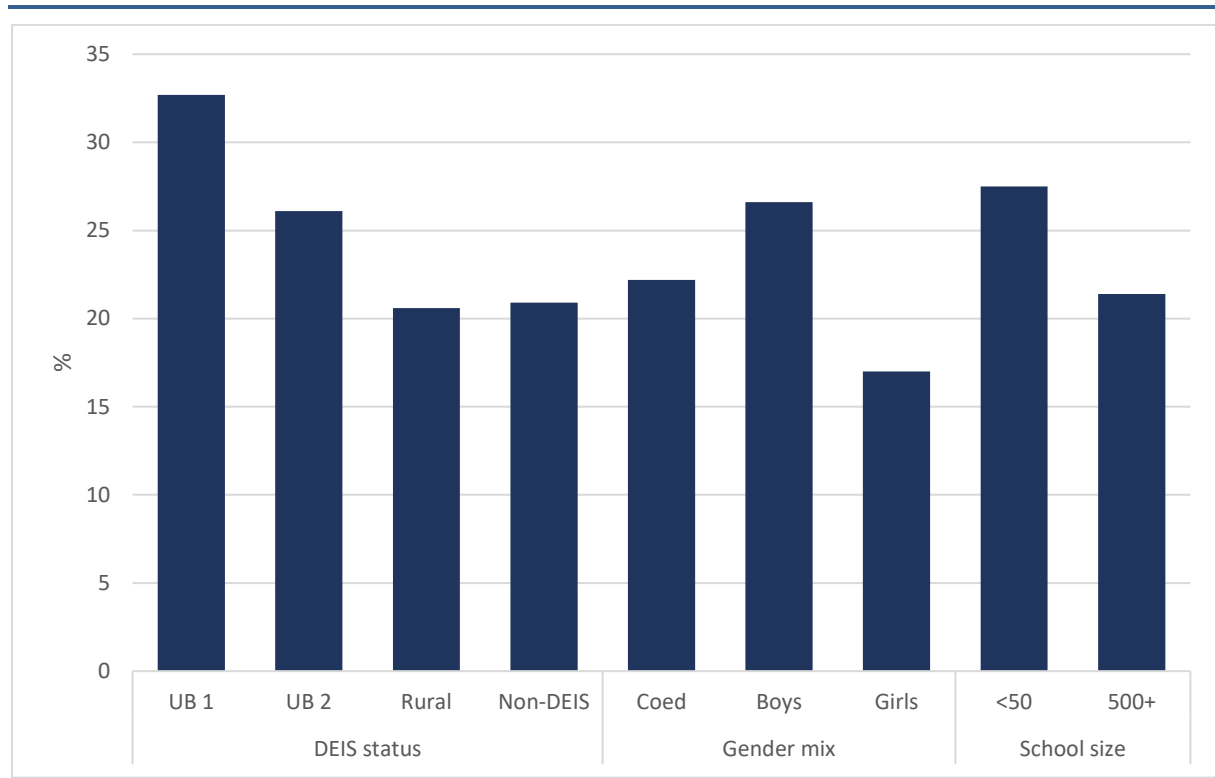
FIGURE 4.5B TEACHER–CHILD CONFLICT BY CHILD CHARACTERISTICS



Source: Growing Up in Ireland study.

Figure 4.6 presents variation in the prevalence of high conflict teacher–student relationships across different types of primary schools. Conflict levels are higher for children attending urban DEIS (especially Urban Band 1) schools than they are in rural DEIS or non-DEIS schools. Not surprisingly, given the strong individual gender differences discussed above, boys’ schools have higher (and girls’ schools have lower) levels of conflict than coeducational schools. Very small schools (that is, with 50 pupils or less) have the highest levels of conflict, with little difference among schools of other sizes. These schools also have somewhat higher levels of teacher–student closeness, so it may be the case that teacher–student interaction in general is greater in these schools. These patterns do not indicate whether schools have different levels of conflict because of the students who attend them or because of other aspects of the school process. The following table presents multilevel models that allow us to better disentangle the relative effects of child, classroom and school characteristics on the quality of teacher–pupil relationships.

FIGURE 4.6 PROPORTION OF CHILDREN WITH WHOM TEACHERS REPORT HIGH LEVELS OF CONFLICT BY SCHOOL CHARACTERISTICS



Source: Growing Up in Ireland study.

TABLE 4.3 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH THE QUALITY OF THE TEACHER–CHILD RELATIONSHIP, AS REPORTED BY THE TEACHER

	Positive	Conflict
Constant	29.459	12.648
Junior infants	-0.066	0.252
Female	1.048***	-1.353***
Social class:		
Professional	0.430*	-0.568*
Managerial	0.465*	-0.520*
Non-manual	0.652**	-0.387±
Skilled manual	0.329	-0.233
Non-employed	0.065	0.137
(Ref.: Semi/unskilled)		
Mother's education:		
Leaving Certificate	0.209	-0.551**
Post-secondary	-0.122	-0.298
Tertiary	0.198	-0.448*
Postgraduate degree	0.119	-0.420±
(Ref.: Lower secondary or less)		
Number of older siblings	-0.149**	0.021
Lone parent family	-0.143	0.226
Migrant family	-0.704***	0.275
Living in an urban area	0.031	0.025
Child has disability	-0.783***	2.190***
Positive parent–child relationship	0.079**	-0.019
Parent–child conflict	0.006	0.011
Home learning environment at 3	0.012*	0.005
Children's books in the home (at age 3):		
10–20	-0.110	0.015
21–30	-0.074	-0.139
30+	-0.118	-0.188
Naming vocabulary score at 3	0.014**	0.002
Picture similarity score at 3	0.024***	-0.014*
SDQ Total Difficulties at 3	-0.019	0.047**
SDQ Prosocial subscale at 3	0.066*	-0.099**
Type of care at 3:		
Relative	0.000	0.090
Non-relative	0.369*	0.063
Centre-based	0.223±	0.466**
Other	-1.383	1.413
(Ref.: Parents)		
Age starting school	0.012	-0.040±
DEIS status:		
Urban Band 1	0.416	-0.096
Urban Band 2	-0.092	0.134
Rural DEIS	-0.039	0.067
(Ref.: Non-DEIS)		
Gender mix:		
Boys	0.273	-0.456
Girls	-0.562*	0.458
(Ref.: Coed)		
School size:		
50–99	-0.060	-0.098
100–199	-0.344	-0.077
200–299	-0.558	0.063
300–399	-0.271	-0.074
400–499	-0.258	0.295
500+	-0.502	0.055
(Ref.: <50)		

(Table 4.3 continued overleaf.)

TABLE 4.3 (CONTINUED)

	Positive	Conflict
Multi-grade class	0.215	-0.058
Class size:		
20–24	-0.035	-0.297
25–29	-0.011	-0.410*
30+	-0.152	-0.420±
Male teacher	-1.263***	0.963**
Teacher experience:		
3–5 years	0.127	0.009
5–10 years	-0.014	0.009
10–15 years	0.237	0.004
15–20 years	0.262	-0.649*
20+ years	0.668**	-0.143
(Ref.: <3 years)		
Between-school variation	0.549***	0.059
Between-teacher variation	4.918***	4.283***
Between-child variation	11.894***	16.184***
Schools	2,157	2,157
Teachers	3,813	3,813
Children	7,307	7,307

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: *Growing Up in Ireland* study.

Table 4.3 looks at the extent to which the quality of the teacher–child relationship is shaped by a range of child, family, school and classroom characteristics. Because patterns for junior and senior infant classes are similar, the analyses pool the two groups of children. In keeping with the descriptive analysis in Figures 4.5a and 4.5b, significant gender differences are found, with teachers reporting more positive and less conflictual relationships with female pupils than male pupils. This pattern holds, even taking account of gender differences in socio-emotional difficulties at the age of three and in the prevalence of disabilities. Children from more middle-class families have more positive relationships with their teachers and experience less conflict with them. No difference is found between lone parent and two-parent families when socio-economic characteristics are taken into account. There is a tendency for children with more older siblings to have less positive relationships with their teachers. Children from immigrant families have less positive relationships with their teachers, all else being equal. However, the descriptive pattern of higher levels of conflict for children from immigrant families is found to be related to their lower test scores in naming vocabulary and picture similarity at the age of three. Children with disabilities have significantly poorer quality relationships with their teachers, even at this early stage, with lower levels of closeness and higher levels of conflict.

The analyses explored the extent to which the quality of a teacher–child relationship is influenced by a child’s preschool experience. Children who have positive relationships with their parents when they are three years have more positive relationships with their teachers two years later, but there is no evidence that parent–child conflict transfers into conflict with teachers. Children with a

more positive home learning environment at the age of three also have better relationships with their teachers, but the size of the difference is small. Those with higher test scores in naming vocabulary at the age of three have more positive relationships with their teachers, while higher non-verbal scores are associated with a reduced incidence of conflict. Additional analyses (not shown here) indicate that better verbal skills (naming vocabulary) measured during the home visit, and some months prior to the teacher report, are associated with a better quality relationship with the teacher. Socio-emotional difficulties at the age of three are predictive of a conflictual relationship with a teacher, while being more prosocial at three years was associated with a better relationship with teachers (more closeness and less conflict).

Children who are cared for by non-relatives, either in home-based or centre-based settings, have closer relationships with their teachers two years later, most likely because of their familiarity with interacting with non-family members. At the same time, however, children who have been in centre-based care also have higher levels of conflict with their teachers. Being older on starting school is associated with a slightly reduced level of conflict but the difference is small.

The DEIS status of a school no longer has a significant effect on the quality of teacher–student relationships when other characteristics are considered. In other words, the higher levels of conflict in urban DEIS schools depicted in Figure 4.6 reflect the concentration of more disadvantaged children and a higher proportion of children with disabilities in these schools. There is a slight tendency for girls attending single-sex girls' schools to have somewhat less close relationships with their teachers than those in coeducational schools. There is no significant variation in the quality of teacher–student relationships by school size, once other characteristics are considered.

There is relatively little variation by classroom and teacher characteristics in relation to the quality of the relationship between child and teacher. Closeness does not vary by class size, though levels of conflict are slightly lower in larger classes (those with 25 or more pupils). Marked variation is found by teacher gender, with lower levels of closeness and higher levels of conflict reported by male teachers, though these findings should be interpreted with caution due to the small number of male teachers in the study. More experienced teachers (20 years or more) tend to report higher levels of closeness with their students. Even taking account of child, family and teacher characteristics, significant variation is found in the quality of teacher–pupil relationships among teachers in the same school, with significant between-school variation found in teacher–pupil closeness.

4.5 SOCIO-EMOTIONAL WELLBEING

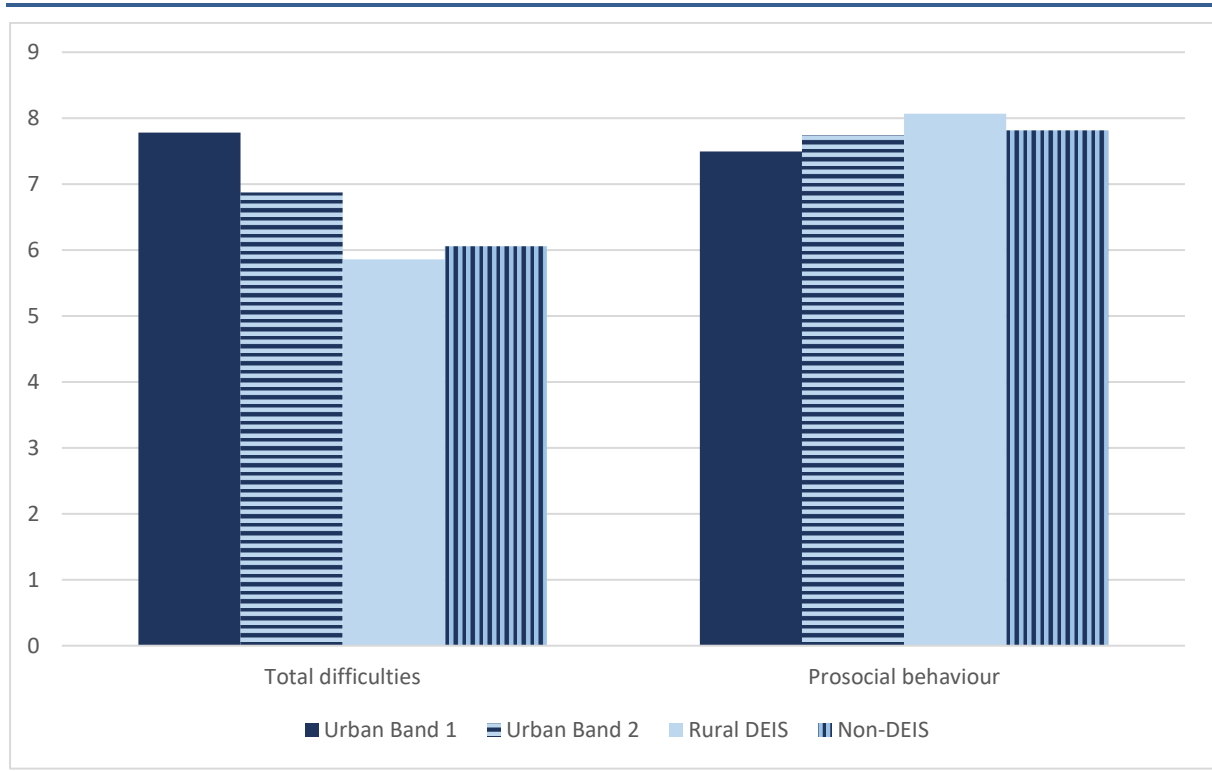
Teachers were asked to complete the Strength and Difficulties (SDQ) questionnaire, an internationally used instrument to capture children's socio-

emotional wellbeing. Difficulties are captured by 25 statements (items), which can be broken down into four different subscales: emotional symptoms; conduct problems; hyperactivity; and peer problems. In addition, five statements capture prosocial behaviour, that is, whether the child socialises well with their peers. The analyses in this section look at the factors influencing total difficulties (that is, poorer socio-emotional wellbeing) and prosocial behaviour. Because there is no *a priori* reason to expect socio-emotional wellbeing to differ between junior and senior infant classes, the whole cohort of five-year-olds is included in the same model.

Table 4.4 indicates that children in junior infant classes have poorer socio-emotional wellbeing than those in senior infant classes, even taking account of age on starting school. Girls have fewer socio-emotional difficulties than boys. In addition, those from working-class/non-employed families or households with lower levels of educational qualifications have greater difficulties. Even taking account of social class and parental education, the children of lone parents are described by teachers as having poorer socio-emotional wellbeing. There are no differences found by family size, whether the child is from an immigrant family and whether the family lives in an urban or rural area. Children with disabilities have poorer socio-emotional wellbeing than their peers and the difference is sizeable, larger than any of the other child and family characteristics considered.

Children with a more positive relationship with their parents at the age of three have fewer socio-emotional difficulties two years later. In initial models (not shown here), having a conflictual relationship with parents is associated with greater difficulties, but this relationship changes direction when other factors are taken into account. A more stimulating home learning environment is associated with fewer difficulties, but this effect is mediated by cognitive skills and socio-emotional wellbeing at the age of three. In other words, parent-child learning activities reduce the incidence of socio-emotional difficulties at five years because they enhance vocabulary and socio-emotional development at the age of three. Children who live in a book-rich environment have fewer difficulties than their peers, as do those with better verbal and non-verbal skills at age three. Children who experience centre-based care at the age of three have significantly higher levels of socio-emotional difficulties than those in other types of care, but the effect is small (see also Russell et al., 2016).

During the home visit several months prior to the teacher questionnaire completion (see Chapter 1), mothers were asked to complete the SDQ questionnaire. Mothers' ratings are predictive of teachers' ratings but the relationship is by no means very strong, which is not surprising given that children will display different behaviours in different contexts. Children who are older on starting school tend to have slightly better socio-emotional wellbeing than those who are younger.

FIGURE 4.7 CHILD'S SOCIO-EMOTIONAL DIFFICULTIES AND PROSOCIAL BEHAVIOUR BY DEIS STATUS OF THE SCHOOL

Source: *Growing Up in Ireland* study.

Figure 4.7 shows the raw differences in total socio-emotional difficulties by DEIS status of the school. Socio-emotional difficulties are found to be significantly greater in Urban Band 1 schools and, to some extent, Urban Band 2 schools. Rural DEIS schools resemble non-DEIS schools in the socio-emotional wellbeing of their students. However, once the disadvantaged nature of the intake to urban DEIS schools is taken into account, there are no significant differences between urban DEIS and other schools (see Table 4.4). Boys attending single-sex schools are rated as having fewer socio-emotional difficulties than those in coeducational schools, though no such difference is evident for girls. It may be that boys in these settings benefit from their teachers not comparing them to girls. Furthermore, there is no systematic variation in socio-emotional wellbeing by school size, classroom or teacher characteristics.

Table 4.5 takes account of the nature of the teacher–child relationship and children's naming vocabulary some months prior to the teacher report. Teachers tend to have more conflictual and less close relationships with children with greater socio-emotional difficulties. It may be that teacher may report greater socio-emotional difficulties where they have a conflictual relationship. However, it is worth noting that mothers' ratings of poor socio-emotional wellbeing have the same relationship with teacher closeness and conflict, though the relationship is not as strong. Much of the social and gender gap in socio-emotional wellbeing is explained by the quality of the teacher–child relationship. Children with better

verbal skills are seen as less likely to have socio-emotional difficulties than their peers.

TABLE 4.4 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH THE CHILD HAVING POORER SOCIO-EMOTIONAL WELLBEING (HIGHER SDQ TOTAL DIFFICULTIES SCORE), AS REPORTED BY THE TEACHER

	Coefficient
Constant	0.390
Junior infants	0.191***
Female	-0.244***
Social class:	
Professional	-0.146**
Managerial	-0.121**
Non-manual	-0.111**
Skilled manual	-0.065
Non-employed	0.001
(Ref.: Semi/unskilled)	
Mother's education:	
Leaving Certificate	-0.146***
Post-secondary	-0.119**
Tertiary	-0.147***
Postgraduate degree	-0.164***
(Ref.: Lower secondary or less)	
Number of older siblings	-0.005
Lone parent family	0.180***
Migrant family	0.027
Living in an urban area	0.003
Child has disability	0.478***
Positive parent-child relationship	-0.013*
Parent-child conflict	-0.007**
Home learning environment at 3	0.000
Children's books in the home (at age 3):	
10-20	-0.056
21-30	-0.110*
30+	-0.120**
Naming vocabulary score at 3	-0.004***
Picture similarity score at 3	-0.006***
SDQ Total Difficulties at 3	-0.002
SDQ Prosocial subscale at 3	-0.013±
Type of care at 3:	
Relative	-0.003
Non-relative	-0.028
Centre-based	0.063*
Other	0.345
(Ref.: Parents)	
Mother's rating of SDQ Total Difficulties (some months previously)	0.219***
Mother's rating of SDQ Pro-Social Behaviour (some months previously)	-0.026*
Age starting school	-0.029***

(Table 4.4. continued overleaf.)

TABLE 4.4 (CONTINUED)

	Coefficient
DEIS status:	
Urban Band 1	-0.034
Urban Band 2	-0.020
Rural DEIS	-0.023
(Ref.: Non-DEIS)	
Gender mix:	
Boys	-0.166**
Girls	0.065
(Ref.: Coed)	
School size:	
50–99	-0.025
100–199	-0.078
200–299	0.001
300–399	-0.011
400–499	0.041
500+	0.007
(Ref.: <50)	
Multi-grade class	-0.022
Class size:	
20–24	-0.036
25–29	-0.065±
30+	-0.048
Male teacher	-0.029
Teacher experience:	
3–5 years	-0.018
5–10 years	0.019
10–15 years	0.010
15–20 years	-0.031
20+ years	-0.021
(Ref.: <3 years)	
Between-school variation	0.008
Between-teacher variation	0.152***
Between-child variation	0.631***
Schools	2,278
Teachers	4,145
Children	8,326

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

TABLE 4.5 MULTILEVEL MODELS OF THE RELATIONSHIP BETWEEN TEACHER–CHILD RELATIONSHIP, VOCABULARY SKILLS AT AGE 5 AND THE CHILD HAVING POORER SOCIO-EMOTIONAL WELLBEING, AS REPORTED BY THE TEACHER

	Coefficient
Teacher–child warmth	-0.031***
Teacher–child conflict	0.107***
Naming vocabulary at age 5	-0.038***

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

Table 4.6 focuses on a more positive perspective, that of prosocial behaviour, that is, positive behaviour towards peers and adults. Children in junior infant classes are given slightly lower ratings of prosocial behaviour by their teachers than those in

senior infants, though the difference is very small. Girls are rated significantly more highly than boys in this domain. In contrast to the pattern for socio-emotional difficulties, there is little systematic variation by social class or maternal education, though managerial and other non-manual groups are rated slightly more highly than others. The children of lone parents are rated as having slightly less prosocial behaviour by their teachers. A sizeable gap is evident in relation to the children of immigrant families. As with socio-emotional difficulties, the largest gap emerges in relation to children with disabilities.

There is very little variation in prosocial behaviour by preschool experiences, though children with better verbal and non-verbal skills and those with more positive relationships with their parents at age three have slightly higher ratings, while those who have attended centre-based care have slightly lower ratings. Age at starting school does not make a difference. Not surprisingly, a child's mother's ratings of prosocial behaviour and socio-emotional difficulties some months previously are predictive of teacher ratings. As with total difficulties, however, the ratings are not very strongly associated; thus, children appear to act differently in different settings and/or teachers and mothers use different benchmarks in assessing child behaviour.

Before taking account of other factors, children attending urban DEIS schools have lower levels of prosocial behaviour than those attending other schools (rural DEIS or non-DEIS) (Figure 4.8), but these differences are much smaller than those found in relation to socio-emotional difficulties. The differences by DEIS status are found to relate to the more disadvantaged intake to the school. Boys attending single-sex schools are reported to be more prosocial than boys in coeducational schools, while girls in single-sex schools are deemed less prosocial. This appears to reflect the fact that in these schools, the comparison is confined to one gender, whereby boys are not being compared unfavourably to 'sociable' girls and vice versa. No other school or classroom characteristics are associated with children's prosocial behaviour.

Teachers report more warmth and less conflict towards more prosocial children (Table 4.7) while ratings are slightly higher for children with better verbal skills.

TABLE 4.6 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH THE CHILD HAVING BETTER PRO-SOCIAL BEHAVIOUR, AS REPORTED BY THE TEACHER

	Coefficient
Constant	-0.295
Junior infants	-0.090±
Female	0.331***
Social class:	
Professional	0.066
Managerial	0.085*
Non-manual	0.091*
Skilled manual	0.017
Non-employed	0.012
(Ref.: Semi/unskilled)	
Mother's education:	
Leaving Certificate	0.023
Post-secondary	0.006
Tertiary	0.002
Postgraduate degree	0.017
(Ref.: Lower secondary or less)	
Number of older siblings	0.005
Lone parent family	-0.088*
Migrant family	-0.171***
Living in an urban area	-0.021
Child has disability	-0.345***
Positive parent-child relationship	0.017**
Parent-child conflict	0.005*
Home learning environment at 3	0.000
Children's books in the home (at age 3):	
10-20	0.062
21-30	0.082
30+	0.066
Naming vocabulary score at 3	0.003***
Picture similarity score at 3	0.003***
SDQ Total Difficulties at 3	-0.001
SDQ Prosocial subscale at 3	0.003
Type of care at 3:	
Relative	0.050
Non-relative	0.028
Centre-based	-0.045±
Other	0.020
(Ref.: Parents)	
Mother's rating of SDQ Total Difficulties (some months previously)	-0.109***
Mother's rating of SDQ Pro-Social Behaviour (some months previously)	0.075***
Age starting school	0.005

(Table 4.6 continued overleaf.)

TABLE 4.6 (CONTINUED)

	Coefficient
DEIS status:	
Urban Band 1	0.022
Urban Band 2	0.036
Rural DEIS	0.086
(Ref.: Non-DEIS)	
Gender mix:	
Boys	0.183**
Girls	-0.121*
(Ref.: Coed)	
School size:	
50–99	0.082
100–199	0.089
200–299	0.018
300–399	0.036
400–499	0.037
500+	0.027
(Ref.: <50)	
Multi-grade class	0.059
Class size:	
20–24	0.026
25–29	0.037
30+	0.036
Male teacher	-0.087
Teacher experience:	
3–5 years	0.009
5–10 years	-0.053
10–15 years	0.020
15–20 years	-0.015
20+ years	0.000
(Ref.: <3 years)	
Between-school variation	0.000
Between-teacher variation	0.210***
Between-child variation	0.663***
Schools	2,279
Teachers	4,145
Children	8,328

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; $\pm p < .10$.

Source: Growing Up in Ireland study.

TABLE 4.7 MULTILEVEL MODELS OF THE RELATIONSHIP BETWEEN TEACHER–CHILD RELATIONSHIP, VOCABULARY SKILLS AT AGE 5 AND THE CHILD HAVING BETTER PRO-SOCIAL BEHAVIOUR, AS REPORTED BY THE TEACHER

	Coefficient
Teacher–child warmth	0.081***
Teacher–child conflict	-0.073***
Naming vocabulary at age 5	0.026**

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; $\pm p < .10$.

Source: Growing Up in Ireland study.

4.6 TEACHER RATING OF CHILD SKILLS

The study collected detailed information from the teacher of each child on how they were getting along in school. The items are a subset of those previously used

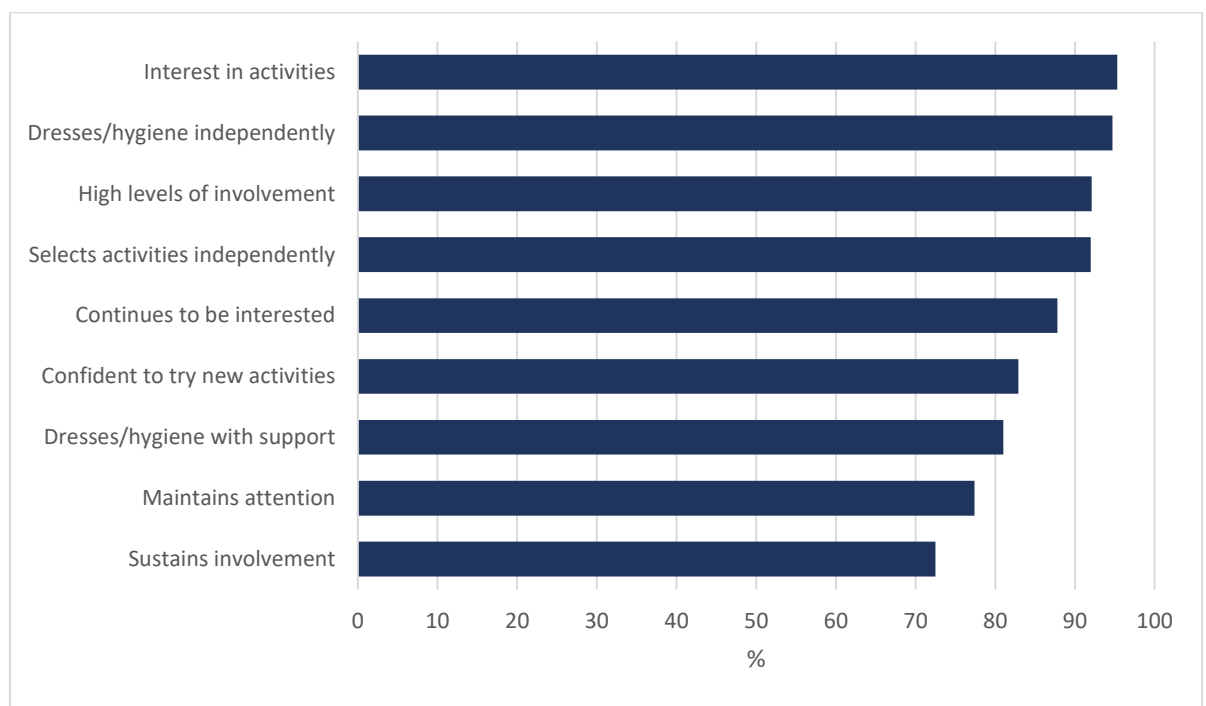
in the Millennium Cohort Study and are based on the Foundation Stage Profile in England, thus providing a comparative benchmark. The five subscales relate to: child disposition and attitudes; language for communication and thinking; linking sounds and letters; reading; and numeracy.

4.6.1 Attitudes and disposition to school

The teacher was asked to give a yes/no response to each of the following items in relation to the study child:

- shows an interest in classroom activities through observations or participation;
- dresses, undresses, and manages own personal hygiene with adult support;
- displays high levels of involvement in self-chosen activities;
- dresses and undresses independently and manages own personal hygiene;
- selects and uses activities and resources independently;
- continues to be interested, motivated and excited to learn;
- is confident to try new activities, initiate ideas, and to speak in a familiar group;
- maintains attention and concentration; and
- sustains involvement and perseveres, particularly when trying to solve a problem or reach a satisfactory conclusion.

Figure 4.8 shows the proportion of five-year-olds for whom positive responses were recorded by their teachers. Teachers report that the vast majority of children are interested and involved in class activities, can manage their hygiene and clothes independently, and are able to select new activities. However, around one-quarter of five-year-olds are seen as not maintaining attention and sustained involvement. An overall scale is derived, with each positive response counted as one. On this scale, seven in ten children score an eight or nine, indicating high levels of positive dispositions. The mean score across all children is 7.7, which is broadly similar to that found in the UK (with scores ranging from 7.3 in England to 7.9 in Northern Ireland) (see Hansen and Jones, 2008). Because of the high scores overall, the analysis focuses on those children who receive lower scores (seven or below); the junior and senior infants classes are pooled because of the relatively small numbers in the group of children with low scores.

FIGURE 4.8 CHILD ATTITUDES AND DISPOSITION TO SCHOOL, AS REPORTED BY THE TEACHER

Source: *Growing Up in Ireland study.*

Table 4.8 presents a multilevel model that looks at the relationship between child, family, school and teacher characteristics and the likelihood of children falling into this more negative attitudes group (that is, those with scores of seven or below). The results are presented in terms of odds ratios. Coefficients below one mean that the characteristic is associated with a lower likelihood of having negative attitudes, while coefficients larger than one indicate a greater tendency to hold negative attitudes. Children in junior infants are seen as 1.2 times more likely to fall into the group of children who have more negative dispositions in relation to school. This pattern is perhaps not surprising, given that junior infant groups have had less time to adapt to the necessity of maintaining concentration and involvement in the classroom setting. Boys are significantly more likely to fall into this group than girls. A social gradient is also evident, with children from working-class, non-employed and/or less educated families more likely to have poorer levels of interest or engagement. Children from immigrant families are more likely overall to fall into this group but this is due to differences in language skills, namely, their lower naming vocabulary at three years of age. The largest single difference is found in relation to children with a disability, who are almost three times as likely as their peers to be negatively disposed to school at this early stage.

Children who have more negative dispositions to school have lower verbal and non-verbal test scores, and are more likely to have had socio-emotional difficulties, a less positive relationship with their parents and a less stimulating home environment at three years. The type of childcare experienced at the age of three is not associated with later dispositions to school but those who are older on school entry are less likely to have negative attitudes to school.

Thirty-nine per cent of children attending Urban Band 1 DEIS schools have more negative dispositions towards school, compared to 29 per cent of those in non-DEIS schools. The model results show that this pattern is related to the concentration of disadvantage found among the students enrolling in urban DEIS schools, as well as the greater prevalence of disability. Boys attending boys' schools are less likely to be rated as having negative dispositions to school than those in coeducational schools, which most likely reflects the use of girls as a benchmark by teachers of mixed gender classes. School or class size are not associated with student dispositions; neither are teacher gender or experience. However, teachers of multi-grade classes (that is, those with more than one grade within the same classroom) are less likely to rate children as having more negative dispositions to school.

Table 4.9 adds in three sets of factors relating to the quality of the teacher–child relationship and verbal test scores at five (with these tests administered some months before the teacher assessment). Children with higher test scores are seen as more 'school ready' than others. The relationship with the quality of the teacher–pupil relationship should be interpreted with some caution, as the two measures are assessed at the same time; thus, it may be the case that a teacher who has more negative views of a child in general will rate them more negatively across measures. At the same time, it is worth noting that the quality of the relationship is significantly related to the child's dispositions towards school, with teachers reporting more conflictual and less close relationships with those children who have difficulties in classroom engagement (Table 4.9).

TABLE 4.8 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH THE CHILD HAVING MORE NEGATIVE ATTITUDES TO SCHOOL, AS REPORTED BY THE TEACHER

	Odds ratios
Constant	-0.288
Junior infants	1.266±
Female	0.604***
Social class:	
Professional	0.742*
Managerial	0.800*
Non-manual	0.822±
Skilled manual	0.990
Non-employed	1.051
(Ref.: Semi/unskilled)	
Mother's education:	
Leaving Certificate	0.770**
Post-secondary	0.748**
Tertiary	0.638***
Postgraduate degree	0.676**
(Ref.: Lower secondary or less)	
Number of older siblings	0.969
Lone parent family	1.100
Migrant family	0.986
Living in an urban area	1.006
Child has disability	2.951***

(Table 4.8 continued overleaf.)

TABLE 4.8 (CONTINUED)

	Odds ratios
Positive parent–child relationship	0.969*
Parent–child conflict	0.992
Home learning environment at 3	0.994±
Children’s books in the home (at age 3):	
10–20	0.970
21–30	0.874
30+	0.829
Naming vocabulary score at 3	0.985***
Picture similarity score at 3	0.983***
SDQ Total Difficulties at 3	1.034***
SDQ Prosocial subscale at 3	0.985
Type of care at 3:	
Relative	0.878
Non-relative	0.882
Centre-based	0.989
Other	1.067
(Ref.: Parents)	
Age starting school	0.931**
DEIS status:	
Urban Band 1	0.867
Urban Band 2	1.002
Rural DEIS	0.973
(Ref.: Non-DEIS)	
Gender mix:	
Boys	0.613**
Girls	1.063
(Ref.: Coed)	
School size:	
50–99	1.251
100–199	1.112
200–299	1.061
300–399	1.280
400–499	1.182
500+	1.111
(Ref.: <50)	
Multi-grade class	0.820***
Class size:	
20–24	0.932
25–29	0.986
30+	1.009
Male teacher	0.823
Teacher experience:	
3–5 years	0.931
5–10 years	0.908
10–15 years	0.910
15–20 years	1.039
20+ years	0.988
(Ref.: <3 years)	
Between-school variation	0.032
Between-teacher variation	0.433***
Schools	2,279
Teachers	4,145
Children	8,328

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

TABLE 4.9 MULTILEVEL MODELS OF THE RELATIONSHIP BETWEEN TEACHER–CHILD RELATIONSHIP, VOCABULARY SKILLS AT AGE 5 AND THE CHILD HAVING MORE NEGATIVE ATTITUDES TO SCHOOL, AS REPORTED BY THE TEACHER

	Odds ratio
Teacher–child warmth	0.881***
Teacher–child conflict	1.115***
Naming vocabulary at age 5	0.839***

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; $\pm p < .10$.

Source: *Growing Up in Ireland* study.

4.6.2 Skills in language for communication and thinking

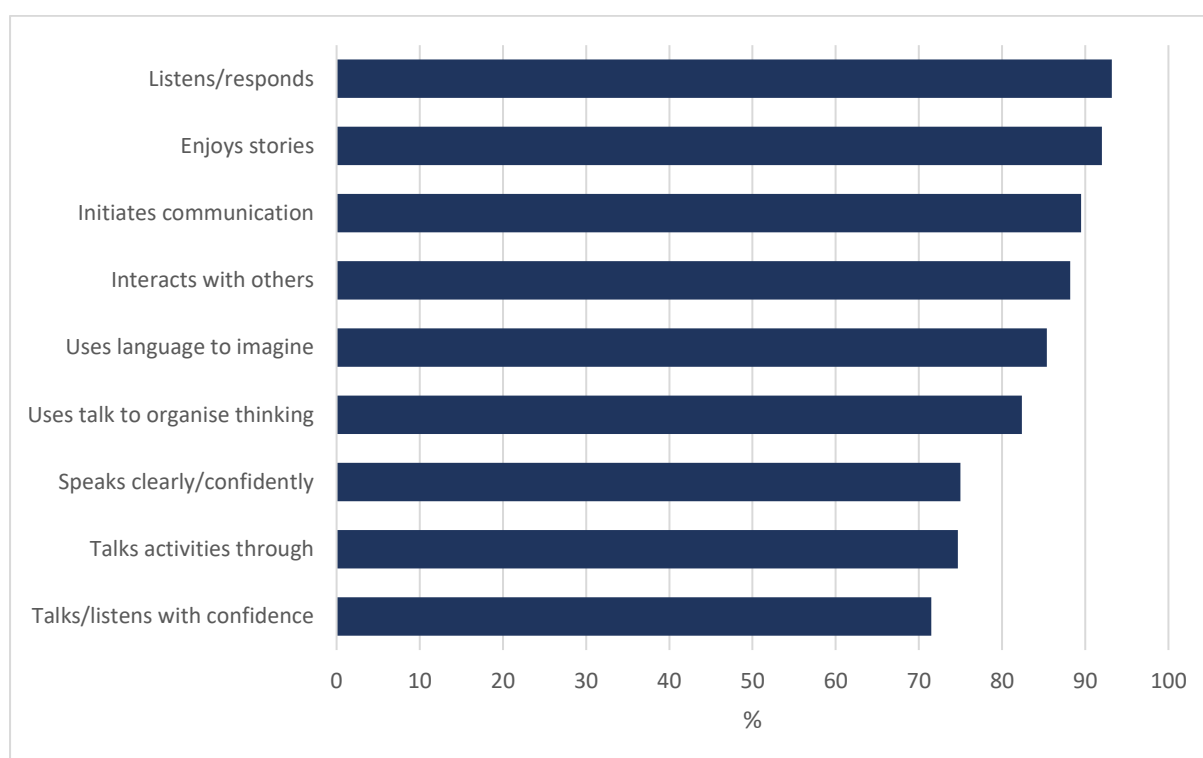
The teacher was asked to give a yes/no response to each of the following items in relation to the study child:

- listens and responds;
- initiates communication with others, displaying greater confidence in more informal contexts;
- talks activities through, reflecting on and modifying actions;
- listens with enjoyment to stories, songs, rhymes and poems; sustains attentive listening and responds with relevant comments, questions, or actions;
- uses language to imagine and to recreate roles and experiences;
- interacts with others in a variety of contexts; negotiates plans and activities; takes turns in conversation;
- uses talk to organise, sequence and clarify thinking, ideas, feelings, and events; explores the meanings and sounds of new words;
- speaks clearly with confidence and control; shows awareness of the listener; and
- talks and listens confidently and with control, consistently showing awareness of the listener by including relevant detail; uses language to work out and clarify ideas, showing control of a range of appropriate vocabulary.

Figure 4.9 shows the proportion of children reported to have each of these skills and competencies. The vast majority – around nine in ten – of children were reported to listen and respond, initiate communication, interact with others and to enjoy stories and poems, etc. Around eight in ten use language to imagine and use talk to organise their thinking and feelings. Slightly fewer – seven in ten – are able to talk and listen confidently and talk their activities through. As with dispositions to school, an overall scale is derived, with each positive response counted as one. On this scale, 68 per cent of children score an eight or nine, indicating high levels of language skills. The mean score across all children is 7.5, which is broadly similar to that found in Northern Ireland and Scotland (7.4–7.5,

with somewhat lower scores, at 6.8, in England) (see Hansen and Jones, 2008). Because of the high scores overall, the analysis focuses on those children who receive lower scores (seven or below); the junior and senior infants classes are again pooled because of the smaller numbers in the group of children with low scores.

FIGURE 4.9 CHILD SKILLS IN LANGUAGE FOR COMMUNICATION AND THINKING, AS REPORTED BY THE TEACHER



Source: *Growing Up in Ireland study.*

Table 4.10 shows the extent to which different child, family, school and teacher characteristics are associated with poorer language skills among five-year-olds. Children in junior infant classes are slightly more likely than those in senior infants to have poor language skills, though the difference is much smaller than was found regarding dispositions to school. Boys are much more likely to have poor language skills than girls. This gender gap is only slightly explained by verbal skills and behaviour prior to starting school (that is, at three years of age). Poorer language skills are slightly more prevalent among those from non-employed backgrounds and whose mothers have lower levels of education. No differences are found between lone parent and two-parent families in children's reported language skills. Children from migrant families are reported to have poorer language skills, a pattern explained by their lower naming vocabulary test scores at the age of three. Children in urban areas are slightly more likely to be seen as having poorer language skills than those in rural areas. Children with disabilities are 1.3 times more likely than their peers to have poorer language skills. It is worth noting that this gap is much less than the difference in relation to dispositions to school.

TABLE 4.10 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH THE CHILD HAVING POORER LANGUAGE SKILLS, AS REPORTED BY THE TEACHER

	Odds ratios
Constant	1.451
Junior infants	1.075*
Female	0.931***
Social class:	
Professional	0.948±
Managerial	0.937*
Non-manual	0.918*
Skilled manual	0.969
Non-employed	1.065*
(Ref.: Semi/unskilled)	
Mother's education:	
Leaving Certificate	0.952*
Post-secondary	0.999
Tertiary	0.936**
Postgraduate degree	0.952
(Ref.: Lower secondary or less)	
Number of older siblings	1.004
Lone parent family	0.976
Migrant family	1.035
Living in an urban area	1.030±
Child has disability	1.285***
Positive parent-child relationship	0.986***
Parent-child conflict	0.998
Home learning environment at 3	1.000
Children's books in the home (at age 3):	
10-20	1.025
21-30	1.004
30+	1.005
Naming vocabulary score at 3	0.994***
Picture similarity score at 3	0.997***
SDQ Total Difficulties at 3	1.005*
SDQ Prosocial subscale at 3	1.000
Type of care at 3:	
Relative	0.954*
Non-relative	0.961±
Centre-based	0.979
Other	1.008
(Ref.: Parents)	
Age starting school	0.990***

(Table 4.10 continued overleaf.)

TABLE 4.10 (CONTINUED)

	Odds ratios
DEIS status:	
Urban Band 1	1.013
Urban Band 2	1.010
Rural DEIS	1.008
(Ref.: Non-DEIS)	
Gender mix:	
Boys	0.920*
Girls	1.048
(Ref.: Coed)	
School size:	
50–99	1.052
100–199	1.037
200–299	1.031
300–399	1.028
400–499	1.061
500+	1.057
(Ref.: <50)	
Multi-grade class	1.002
Class size:	
20–24	0.989
25–29	0.984
30+	0.997
Male teacher	1.054
Teacher experience:	
3–5 years	1.015
5–10 years	1.021
10–15 years	1.000
15–20 years	1.033
20+ years	1.036
(Ref.: <3 years)	
Between-school variation	0.001
Between-teacher variation	0.191***
Schools	2,279
Teachers	4,142
Children	8,315

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; $\pm p < .10$.

Source: Growing Up in Ireland study.

TABLE 4.11 MULTILEVEL MODELS OF THE RELATIONSHIP BETWEEN TEACHER–CHILD RELATIONSHIP, VOCABULARY SKILLS AT AGE 5 AND THE CHILD HAVING POORER LANGUAGE SKILLS, AS REPORTED BY THE TEACHER

	Odds ratio
Teacher–child warmth	0.969***
Teacher–child conflict	1.009***
Naming vocabulary at age 5	0.990

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; $\pm p < .10$.

Source: Growing Up in Ireland study.

Children who have a more positive relationship with their parents at age three are less likely to have poor language skills two years later. The home learning environment or number of books in the home does not have a direct effect on later language skills but the home learning environment has an indirect effect through

early vocabulary skills. Children who have better vocabulary and non-verbal skills at the age of three are less likely to have poor language skills two years later. Those who have greater socio-emotional difficulties at three years tend to have slightly poorer language skills at five years. Children who are cared for by a relative at the age of three are less likely to have poor language skills later as, to some extent, are those cared for by a non-relative when compared to those cared for by their parents. Patterns for those who attend centre-based care are similar to those who are cared for by their parents. Children who are older on starting school tend to have somewhat better language skills.

Overall, 44 per cent of children attending DEIS Urban Band 1 schools are reported to have poorer language skills, compared to 36 per cent of those in Urban Band 2 schools and 31 per cent in rural DEIS and non-DEIS schools. Table 4.5 shows no net difference by DEIS status when other family and child characteristics are taken into account. In other words, children in urban DEIS schools are reported to have poorer language skills because they are more likely to come from non-employed or less educated families and they are more likely to have a disability. Boys attending single-sex schools are less likely to have poorer language skills; as with dispositions to school, this may relate to the absence of girls as a reference group in these schools. There is no variation by school size, classroom or teacher characteristics in the prevalence of children having poorer language skills, all else being equal, although there is some variation between individual teachers in the proportion who report that children have poorer language skills.

Table 4.11 adds in the quality of the teacher–child relationship and the child's naming vocabulary test scores from several months previously. As with dispositions to school, children with whom the teacher reports a positive relationship are less likely (and those with a conflictual relationships more likely) to be described as having poorer language skills by teachers. The gender gap in perceived language skills is no longer significant when the quality of the teacher–child relationship is taken into account. Somewhat surprisingly, naming vocabulary test scores at age five are not significantly associated with perceived language skills. This appears to be related to the mix of test scores found among those characterised as having poorer language skills. Additional analyses (not shown here) suggest a linear and significant relationship between naming vocabulary test scores at five and language skills scores, as reported by the teacher.

4.6.3 Skills in linking sounds and letters

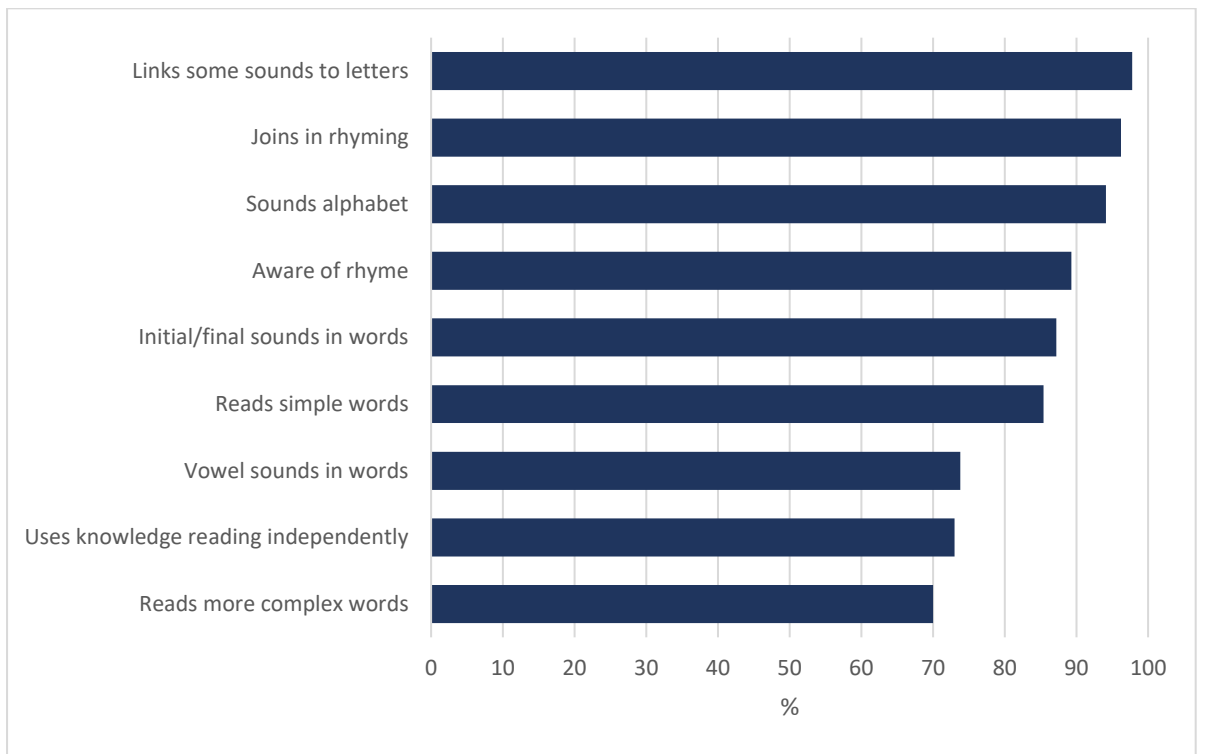
The teacher was asked to give a yes/no response to each of the following items in relation to the study child:

- joins in rhyming and rhythmic activities;
- shows an awareness of rhyme and alliteration;

- links some sounds to letters;
- links sounds to letters, naming and sounding letters of the alphabet;
- hears and says initial and final sounds in words;
- hears and says vowel sounds within words;
- uses phonic knowledge to read simple and regular words;
- attempts to read more complex words, using phonic knowledge; and
- uses knowledge of letters, sounds and words when reading and writing independently.

Figure 4.10 shows the proportion of children reported to have each of these skills and competencies. The vast majority – around nine in ten – of children were reported to link some sounds to letters, join in rhyming and to sound letters of the alphabet. Awareness of rhyme, saying the initial and final sounds in words and reading some simple words were reported for about four-fifths of children. Sounding vowel sounds, reading more complex words and using the knowledge of sounds independently were reported for fewer children but nonetheless were evident for around seven in ten five-year-olds. As above, an overall scale is derived with each positive response counted as one. The mean score across all children is 7.6, which is slightly higher than scores reported in the UK (where scores varied from 6.2 in England to 7.5 in Scotland) (see Hansen and Jones, 2008). Because children in junior infant classes differ markedly in their patterns to those in senior infant classes (with a score of 6.6 compared with 8.1 respectively), the factors influencing their skills are modelled separately in Table 4.8.

FIGURE 4.10 CHILDREN'S SKILLS IN LINKING SOUNDS AND LETTERS, AS REPORTED BY THE TEACHER



Source: *Growing Up in Ireland* study.

TABLE 4.12 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH THE CHILD'S SKILLS IN LINKING SOUNDS AND LETTERS, AS REPORTED BY THE TEACHER

	Junior infants	Senior infants
Constant	-0.650	-0.265
Female	0.117**	0.093***
Social class:		
Professional	0.000	0.168***
Managerial	-0.002	0.119**
Non-manual	-0.030	0.102*
Skilled manual	-0.022	0.081±
Non-employed (Ref.: Semi/unskilled)	-0.090	-0.101*
Mother's education:		
Leaving Certificate	0.053	0.174***
Post-secondary	0.153±	0.128**
Tertiary	0.173*	0.234***
Postgraduate degree (Ref.: Lower secondary or less)	0.177*	0.191***
Number of older siblings	0.004	-0.053***
Lone parent family	-0.199**	0.009
Migrant family	-0.015	0.050
Living in an urban area	-0.120*	-0.006
Child has disability	-0.600***	-0.339***
Positive parent-child relationship	-0.002	0.007
Parent-child conflict	0.004	0.002
Home learning environment at 3	0.004	0.004**
Children's books in the home (at age 3):		
10-20	0.082	0.085±
21-30	0.134	0.143***
30+	0.158	0.176***
Naming vocabulary score at 3	0.009***	0.007***
Picture similarity score at 3	0.007***	0.004**
SDQ Total Difficulties at 3	-0.021***	-0.008**
SDQ Prosocial subscale at 3	-0.023*	-0.003
Type of care at 3:		
Relative	-0.013	0.051
Non-relative	0.059	0.036
Centre-based	0.059	0.055*
Other (Ref.: Parents)	0.994±	-1.442**
Age starting school	0.001	0.011***
DEIS status:		
Urban Band 1	-0.130	0.105±
Urban Band 2	0.024	0.022
Rural DEIS (Ref.: Non-DEIS)	0.018	0.004
Gender mix:		
Boys	0.242±	0.075
Girls (Ref.: Coed)	-0.028	-0.060
School size:		
50-99	-0.158	-0.044
100-199	0.074	-0.054
200-299	0.024	-0.073
300-399	0.020	-0.059
400-499	-0.068	-0.097
500+ (Ref.: <50)	-0.053	-0.053

(Table 4.12 continued overleaf.)

TABLE 4.12 (CONTINUED)

	Junior infants	Senior infants
Multi-grade class	0.036	0.092*
Class size:		
20–24	0.104	0.020
25–29	0.181*	0.074±
30+	0.151	0.043
Male teacher	0.189	0.042
Teacher experience:		
3–5 years	-0.185±	0.042
5–10 years	-0.106	0.024
10–15 years	-0.212±	0.041
15–20 years	-0.169	-0.013
20+ years (Ref.: <3 years)	-0.257*	0.006
Between-school variation	0.256***	0.020±
Between-teacher variation	0.287***	0.086***
Between-child variation	0.485***	0.482***
Schools	1,371	1,951
Teachers	1,680	2,702
Children	2,561	5,689

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

TABLE 4.13 MULTILEVEL MODELS OF THE RELATIONSHIP BETWEEN TEACHER–CHILD RELATIONSHIP, VOCABULARY SKILLS AT AGE 5 AND THE CHILD'S SKILLS IN LINKING SOUNDS AND LETTERS, AS REPORTED BY THE TEACHER

	Junior infants	Senior infants
Teacher–child warmth	0.041***	0.022***
Teacher–child conflict	-0.007	-0.014***
Naming vocabulary at age 5	0.165***	0.070**

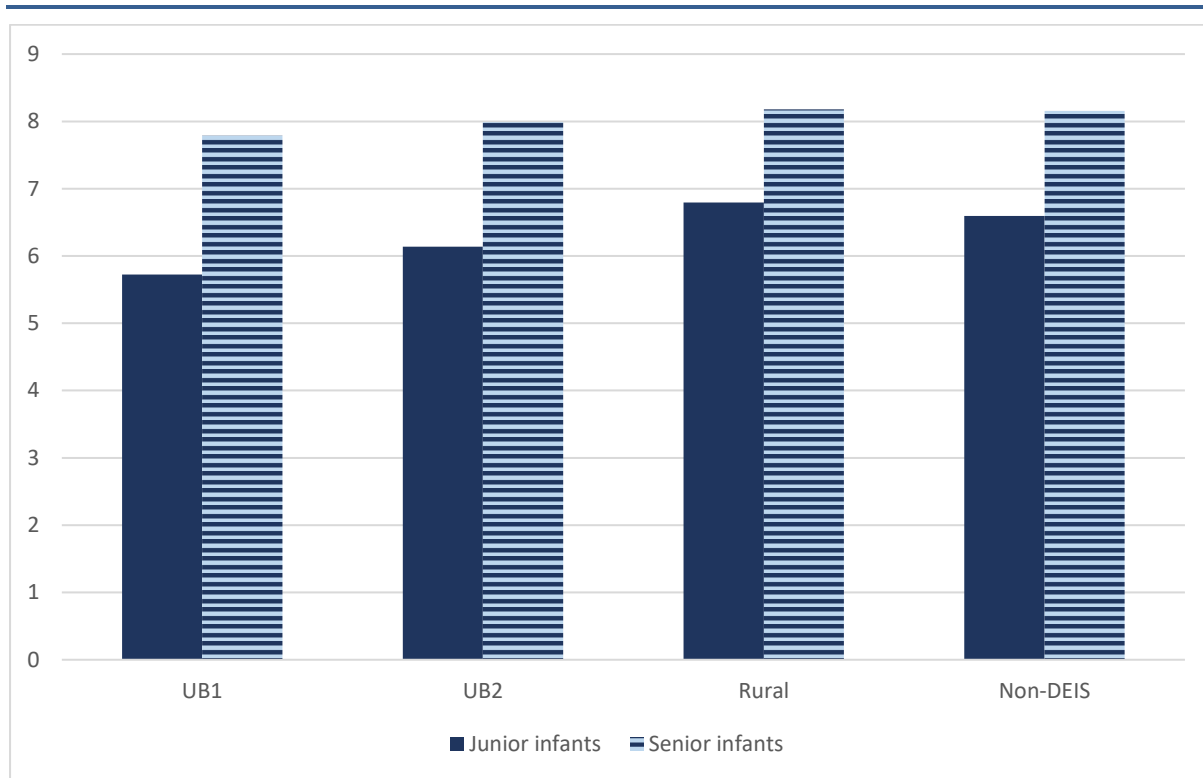
Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

As with dispositions and language skills, girls are rated more positively than boys by their teachers (Table 4.12). The patterns for the influence of social class background differ between junior and senior infants. This may be because some family influences are more evident among school entrants, while school experiences will also have influenced outcomes by the time children are in senior infants. Among the larger senior infants group, the highest scores are found among those from professional/managerial families and the lowest scores are evident among the non-employed group. In addition, among senior infants, those with more older siblings have slightly lower scores. The children of more highly qualified mothers achieve higher scores in both class groups. Among junior infants only, lower scores are found among those from lone parent families and those living in urban areas. Skills in linking sounds and letters are poorer among children with disabilities; the size of the gap is larger among junior infants, most likely reflecting the fact that parents of children with more severe impairments may wait until they are older to send them to school (see Chapter 2).

Children who have more exposure to books in the home and a more positive home learning environment at the age of three have better skills in linking sounds and letters at five years of age.¹⁸ Children who have better verbal and non-verbal skills at the age of three also have higher scores at five years, while scores are lower among those who have socio-emotional difficulties at three. There are few consistent differences by type of care at three but those who are in centre-based care at three years have slightly higher scores later (though significantly so only for senior infants). Being older starting school is associated with higher scores among senior infants.

FIGURE 4.11 CHILDREN'S SKILLS IN LINKING SOUNDS AND LETTERS BY DEIS STATUS OF THE SCHOOL AND CLASS LEVEL



Source: Growing Up in Ireland study.

Figure 4.11 shows the raw differences in skills in linking sounds and letters by DEIS status of the school. At both junior and senior infant levels, the lowest scores are found among those in the most disadvantaged schools, Urban Band 1, with the highest scores in rural DEIS and non-DEIS schools. The gap in scores is less at senior infants level, suggesting that school-based learning has supported children in DEIS schools in attaining skills that were already developed on school entry among some of those in rural DEIS and non-disadvantaged schools. This interpretation is supported by the fact that children attending Urban Band 1 DEIS schools achieve slightly higher scores than might be expected given their disadvantaged profile (Table 4.8), a pattern that is likely to reflect the strong emphasis on literacy in these

¹⁸ The pattern is similar for junior and senior infants but not statistically significant for the former, most likely reflecting the smaller size of this group.

schools. There are no consistent differences in scores by the gender mix or size of the school. Similarly, there is little consistent variation by classroom or teacher characteristics, with slightly higher ratings of children's skills in multi-grade classes.

Not surprisingly, naming vocabulary test scores are predictive of skills in linking sounds and letters several months later. This relationship is stronger for the junior infants group, again suggesting the importance of exposure to school in shaping these skills among senior infants. Teachers with warmer relationships with children report better skills among five-year-olds, while conflictual relationships are associated with lower ratings. The quality of the relationship between teacher and child accounts for around half of the initial gender gap in skills.

4.6.4 Skills in reading

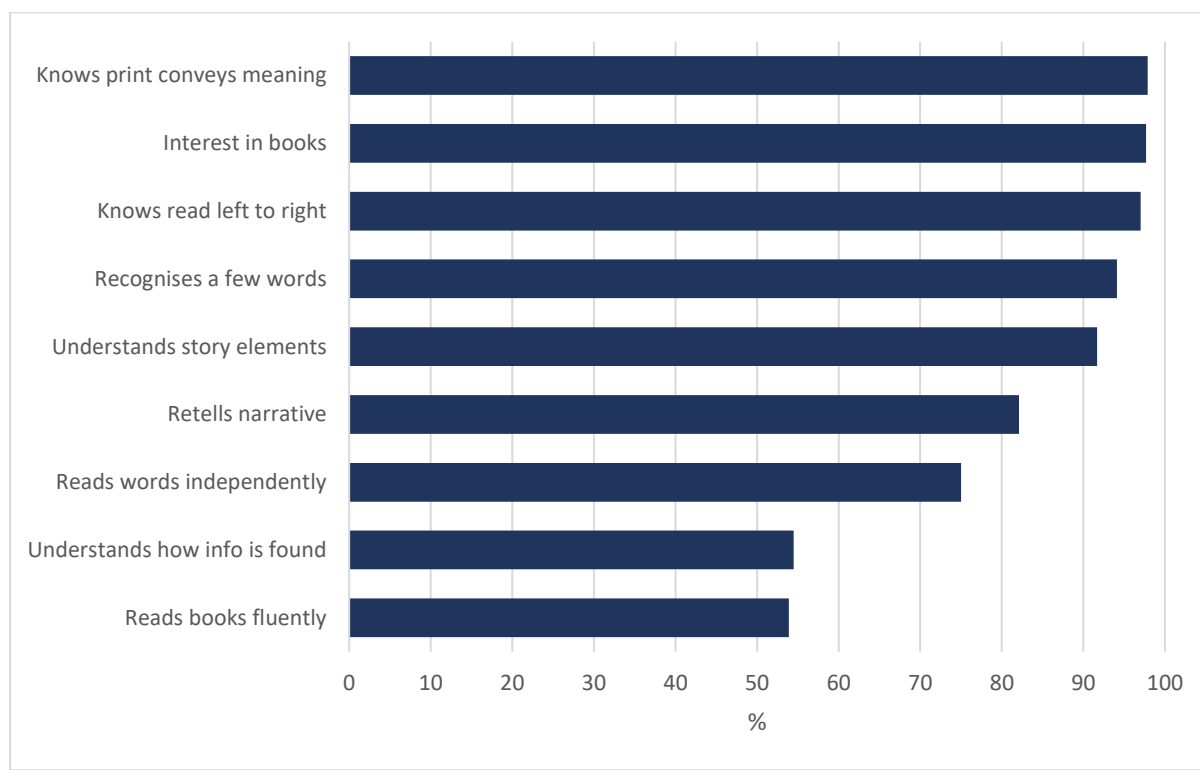
Teachers were asked to give a yes/no response to each of the following items in relation to the study child:

- is developing an interest in books;
- knows that print conveys meaning;
- recognises a few familiar words;
- knows that, in English or Irish, print is read from left to right and top to bottom;
- shows an understanding of the elements of stories, such as main character, sequence of events, and openings;
- reads a range of familiar and common words and simple sentences independently;
- retells narratives in the correct sequence, drawing on language patterns of stories;
- shows an understanding of how information can be found in non-fiction texts to answer questions about where, who, why and how; and
- reads books of own choice with some fluency and accuracy.

Figure 4.12 shows the proportion of children reported to have each of these reading skills. The vast majority have an interest in books and understand the nature of story and text, as well as being able to recognise a few words. Around four-fifths of children can retell a story narrative, while three-quarters can read some words independently. Just over half are described as reading books fluently and as understanding how to access information in non-fiction texts. As above, an overall scale is derived, with each positive response counted as one. The mean score across all children is 7.5, which is comparable to scores reported in Northern Ireland and Scotland (see Hansen and Jones, 2008). Because children in junior infant classes differed in their patterns to those in senior infant classes (with a

score of 6.4 compared with eight respectively), the factors influencing their skills are modelled separately in Table 4.14.

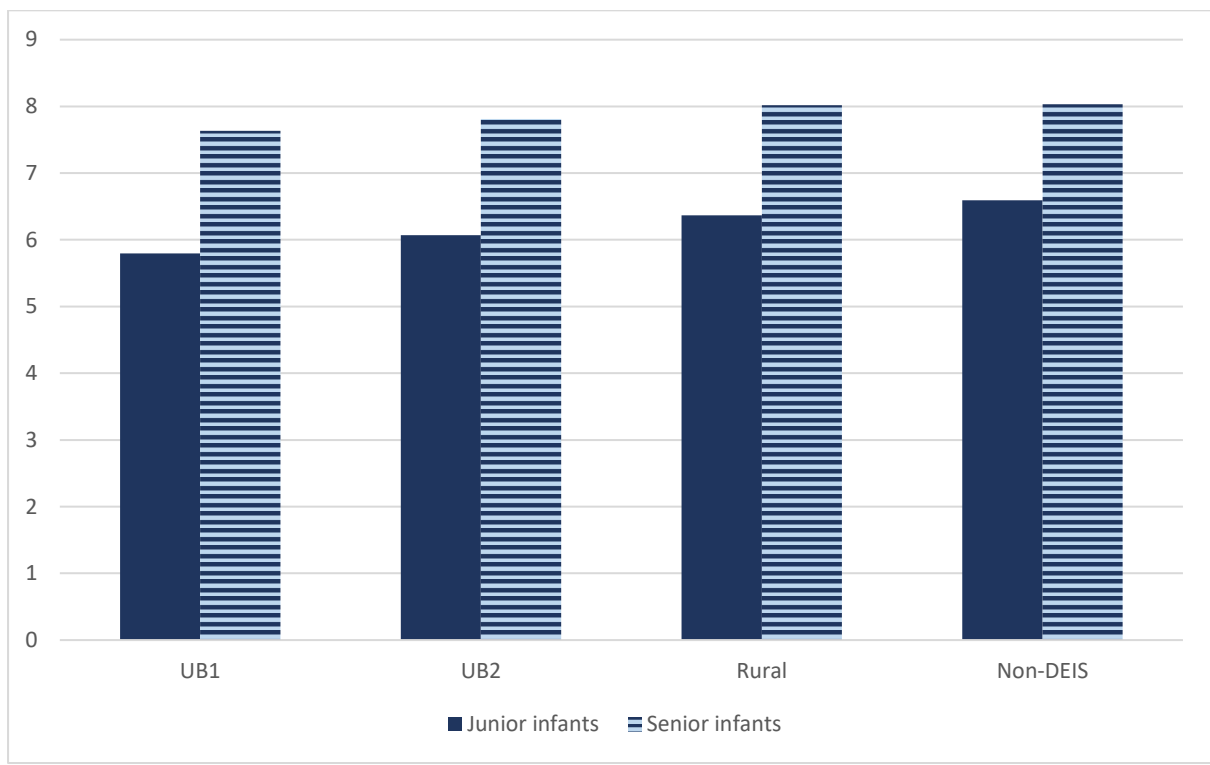
FIGURE 4.12 CHILDREN'S READING SKILLS, AS REPORTED BY THE TEACHER



Source: *Growing Up in Ireland study.*

As with linking sounds and letters, girls are reported to have better reading skills than boys. At senior infants, better reading skills are found among those from professional/managerial backgrounds while the poorest reading skills are found among children from semi/unskilled manual and non-employed families. In addition, reading scores are slightly lower among those with more older siblings. Mothers' education level is associated with reading skills among both junior and senior infants, with better scores found among the children of graduate mothers. Initially, children from migrant backgrounds score around one-fifth of a standard deviation lower than Irish children. However, this difference is due to poorer verbal skills at three years of age. Children with disabilities have lower reading scores at both junior and senior infant levels.

Reading skills are enhanced among children with a more positive home learning environment and more exposure to books in the home. Better verbal and non-verbal skills are also associated with enhanced reading skills, while lower scores are found among those with socio-emotional difficulties at the age of three. There is little consistent variation by type of childcare at the age of three, though there is a small but significant difference in reading skills for those who attend centre-based care at age three.

FIGURE 4.13 CHILDREN'S READING SKILLS BY DEIS STATUS OF THE SCHOOL AND CLASS LEVEL

Source: *Growing Up in Ireland* study.

Raw differences are evident in reading skills by the DEIS status of the school, with lower scores in Urban Band 1 schools and higher scores in non-DEIS and rural DEIS schools (Figure 4.13). As with linking sounds and letters, the gap is slightly greater among junior infant classes. Taking account of social background and child characteristics before school entry, no net variation is found by DEIS status. Similarly, reading scores do not vary by the gender mix of the school or by school size. Multi-grade teachers tend to report better reading skills among their students, especially at senior infants levels. This may reflect more emphasis on formal teaching and less emphasis on play-based learning in these classes (see Chapter 3). The pattern by class size is not consistent so the positive coefficient for large junior infant classes seems to reflect a correlation with other variables. There are inconsistencies too in the pattern by teacher experience, though the most experienced teachers tend to report poorer reading skills among their five-year-old pupils.

As with other skills and competencies, better reading skills are reported for children who have warmer and less conflictual relationships with their teachers. Not surprisingly, verbal test scores are significantly related to reading skills some months after the tests have been carried out (Table 4.15).

TABLE 4.14 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH CHILDREN'S READING SKILLS, AS REPORTED BY THE TEACHER

	Junior infants	Senior infants
Constant	-1.042	-0.154
Female	0.081*	0.097***
Social class:		
Professional	0.046	0.206***
Managerial	0.031	0.171***
Non-manual	0.019	0.152***
Skilled manual	0.093	0.076±
Non-employed	0.071	-0.071
(Ref.: Semi/unskilled)		
Mother's education:		
Leaving Certificate	0.139±	0.139***
Post-secondary	0.125	0.106*
Tertiary	0.184*	0.192***
Postgraduate degree	0.189*	0.171***
(Ref.: Lower secondary or less)		
Number of older siblings	-0.008	-0.046***
Lone parent family	-0.046	0.014
Migrant family	0.000	-0.012
Living in an urban area	-0.114*	-0.004
Child has disability	-0.486***	-0.317***
Positive parent-child relationship	0.009	0.001
Parent-child conflict	0.007±	0.002
Home learning environment at 3	0.002	0.005**
Children's books in the home (at age 3):		
10-20	0.281**	0.017
21-30	0.370***	0.103***
30+	0.403***	0.132**
Naming vocabulary score at 3	0.010***	0.008***
Picture similarity score at 3	0.005**	0.003**
SDQ Total Difficulties at 3	-0.019***	-0.013***
SDQ Prosocial subscale at 3	-0.015	-0.006
Type of care at 3:		
Relative	0.088	0.033
Non-relative	0.009	0.008
Centre-based	0.026	0.053*
Other	0.332	-1.086*
(Ref.: Parents)		
Age starting school	-0.006	0.012*

(Table 4.14 continued overleaf.)

TABLE 4.14 (CONTINUED)

	Junior infants	Senior infants
DEIS status:		
Urban Band 1	0.031	0.054
Urban Band 2	0.003	0.012
Rural DEIS	-0.017	0.006
(Ref.: Non-DEIS)		
Gender mix:		
Boys	0.052	0.094
Girls	-0.101	-0.056
(Ref.: Coed)		
School size:		
50–99	-0.068	0.036
100–199	0.069	0.034
200–299	0.065	0.039
300–399	0.034	-0.019
400–499	0.007	0.000
500+	0.002	0.023
(Ref.: <50)		
Multi-grade class	0.058	0.109**
Class size:		
20–24	0.082	0.021
25–29	0.099	0.023
30+	0.172*	-0.001
Male teacher	0.245	0.064
Teacher experience:		
3–5 years	-0.316**	-0.026
5–10 years	-0.203***	-0.037
10–15 years	-0.119	-0.024
15–20 years	-0.150	-0.099
20+ years	-0.260**	-0.116*
(Ref.: <3 years)		
Between-school variation	0.204***	0.018
Between-teacher variation	0.317***	0.123***
Between-child variation	0.369***	0.450***
Schools	1,370	1,953
Teachers	1,680	2,706
Children	2,563	5,701

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; $\pm p < .10$.

Source: Growing Up in Ireland study.

TABLE 4.15 MULTILEVEL MODELS OF THE RELATIONSHIP BETWEEN TEACHER–CHILD RELATIONSHIP, VOCABULARY SKILLS AT AGE 5 AND CHILDREN'S READING SKILLS, AS REPORTED BY THE TEACHER

	Junior infants	Senior infants
Teacher–child warmth	0.048***	0.031***
Teacher–child conflict	-0.007	-0.013***
Naming vocabulary at age 5	0.096***	0.071***

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; $\pm p < .10$.

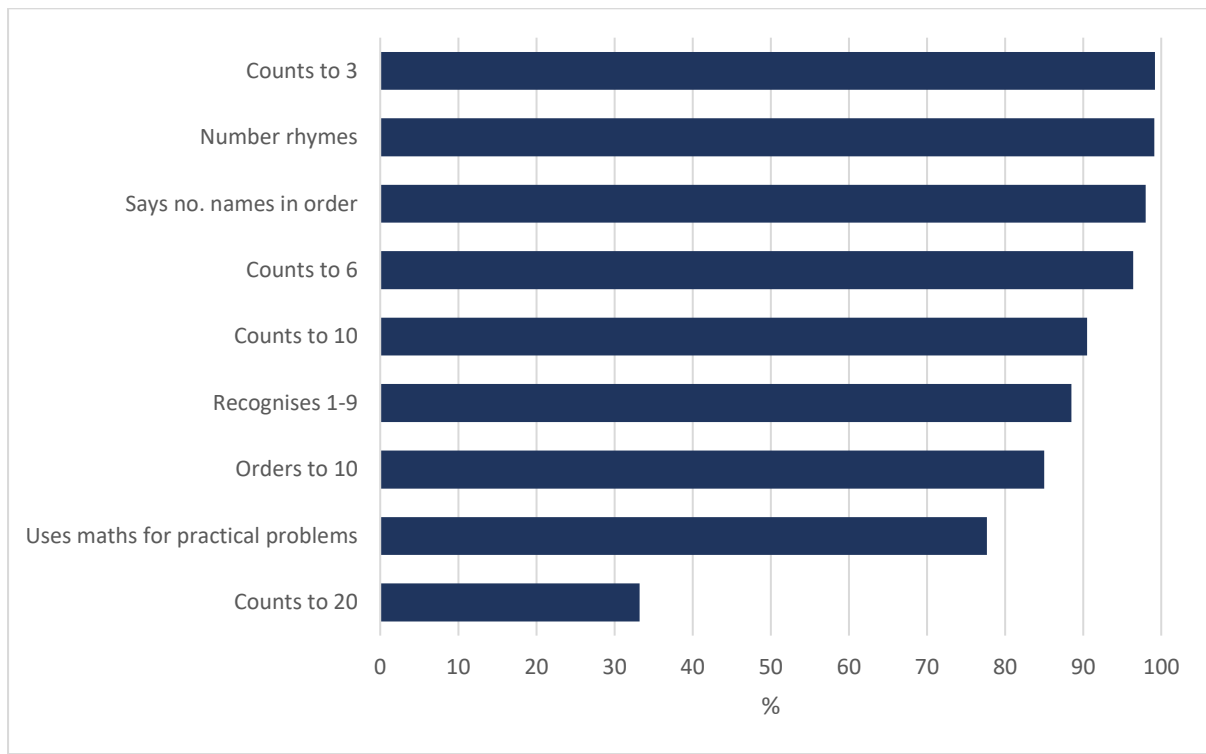
Source: Growing Up in Ireland study.

4.6.5 Number skills

The teacher was asked to give a yes/no response to each of the following items in relation to their study child:

- says some number names in familiar contexts, such as in nursery rhymes;
- counts reliably up to three everyday objects;
- counts reliably up to six everyday objects;
- says number names in order;
- recognises numerals one to nine;
- counts reliably up to ten everyday objects;
- orders numbers up to ten;
- uses developing mathematical ideas and methods to solve practical problems;
and
- recognises, counts, orders, writes, and uses numbers up to 20.

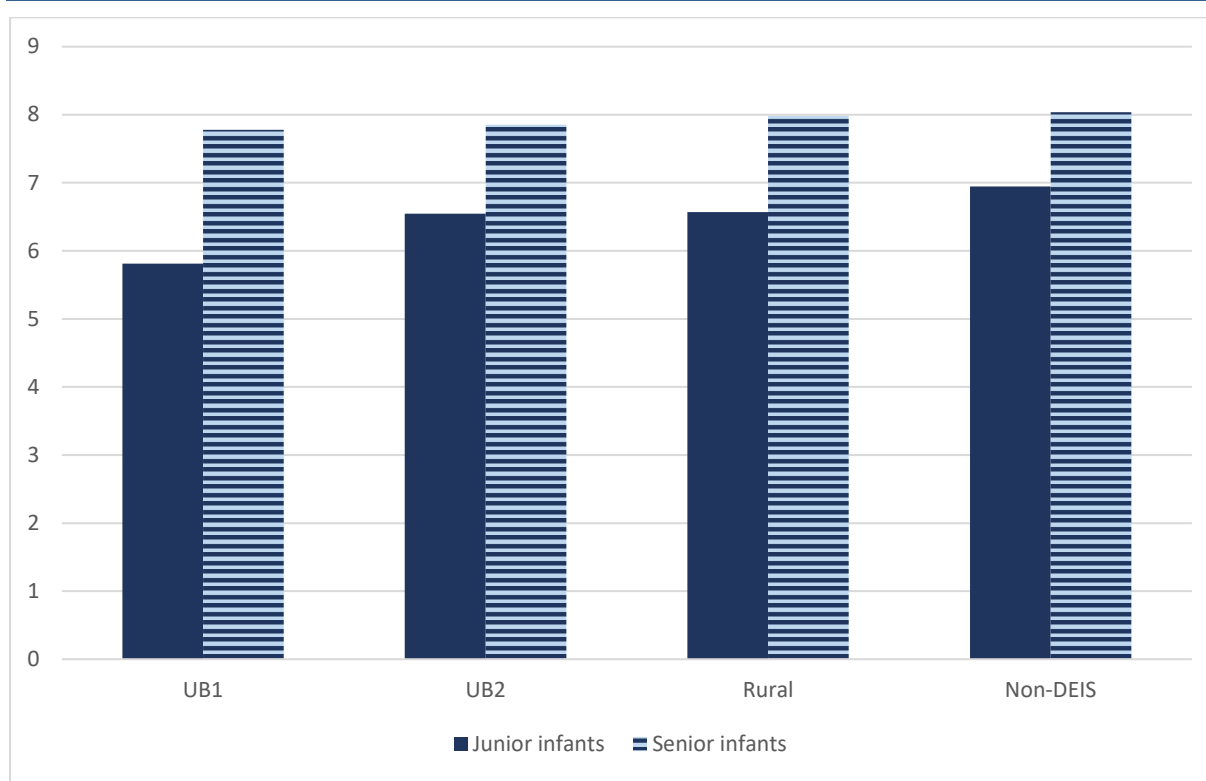
Figure 4.14 shows the proportion of children reported to have each of these number skills. The vast majority say some number names in different contexts and in order and can count up to six. Nine in ten children can count up to ten and recognise the numbers one to nine. Almost four-fifths use mathematical skills to solve practical problems. One-third of five-year-olds are able to count to 20. As above, an overall scale is derived, with each positive response counted as one. The mean score across all children is 7.7, which is comparable to scores reported in England but slightly lower than scores in Wales, Northern Ireland and Scotland (see Hansen and Jones, 2008). Because children in junior infant classes differ in their patterns to those in senior infant classes (with a score of 6.9 compared with eight respectively), the factors influencing their skills are modelled separately in Table 4.16.

FIGURE 4.14 CHILDREN'S NUMBER SKILLS, AS REPORTED BY THE TEACHER

Source: *Growing Up in Ireland* study.

In contrast to language skills, no significant differences in number skills are reported for girls and boys. At senior infants, better number skills are found among those from professional/managerial backgrounds while the poorest skills are found among children from skilled and semi/unskilled manual and non-employed families. Poorer number skills are found among those whose mothers have lower secondary education or less (for senior infants). In addition, number skills scores are slightly lower among those with more older siblings. Raw scores are lower among children from migrant backgrounds but relative to their earlier verbal test scores, this group tends to do better in number skills at senior infant level. Children with disabilities have lower number scores at both junior and senior infant levels.

The home learning environment and having more books at home are associated with better number skills. Children with higher vocabulary and picture similarity test scores at the age of three have better number skills two years later. As with the other outcomes, greater socio-emotional difficulties are associated with poorer skill development. Number skills do not vary by type of care at the age of three but those who start school later, at least among those in senior infants, have better number skills.

FIGURE 4.15 CHILDREN'S NUMBER SKILLS BY DEIS STATUS OF THE SCHOOL AND CLASS LEVEL

Source: *Growing Up in Ireland study.*

Figure 4.15 shows raw differences in number skills by school DEIS status. A gap is apparent between urban DEIS and other schools in number skills at school entry, that is, among junior infants. However, the gap at senior infant level is much smaller, though urban DEIS schools have slightly lower scores than non-DEIS and rural DEIS schools. Taking account of social background and child characteristics before school entry, no net variation is found by DEIS status for senior infant groups but those entering Urban Band 1 DEIS schools have poorer number skills than might be expected, given their background. Although there is no overall gender difference in number skills at this stage, those attending boys' schools are given higher ratings, while those in girls' schools are given lower ratings than those in coeducational settings. Number scores do not vary by school size. Multi-grade teachers tend to report better number skills among their students at senior infants level. As with the pattern for reading skills, this may reflect a greater emphasis on formal instruction and less emphasis on play-based learning in these classes (see Chapter 3). There is no significant variation by class size. There are some inconsistencies in the pattern by teacher experience, with more experienced teachers tending to report poorer number skills. Male teachers tend to rate their students more highly in terms of number skills.

As with other skills and competencies, better number skills are reported for children who have warmer and less conflictual relationships with their teachers. Verbal test scores are significantly related to number skills some months after the tests are carried out (Table 4.16).

TABLE 4.16 MULTILEVEL MODELS OF FACTORS ASSOCIATED WITH CHILDREN'S NUMBER SKILLS, AS REPORTED BY THE TEACHER

	Junior infants	Senior infants
Constant	-0.664	-0.107
Female	0.008	0.010
Social class:		
Professional	0.100	0.167***
Managerial	0.096	0.139***
Non-manual	0.124	0.082*
Skilled manual	0.018	0.029
Non-employed	-0.106	-0.046
(Ref.: Semi/unskilled)		
Mother's education:		
Leaving Certificate	0.136	0.160***
Post-secondary	0.107	0.129**
Tertiary	0.164*	0.165***
Postgraduate degree	0.188*	0.164***
(Ref.: Lower secondary or less)		
Number of older siblings	-0.030	-0.030**
Lone parent family	-0.055	-0.048
Migrant family	0.007	0.060*
Living in an urban area	-0.066	0.011
Child has disability	-0.553***	-0.240***
Positive parent-child relationship	-0.003	0.009
Parent-child conflict	0.007	0.001
Home learning environment at 3	0.004±	0.005***
Children's books in the home (at age 3):		
10-20	0.137	0.040
21-30	0.102	0.094*
30+	0.222*	0.101*
Naming vocabulary score at 3	0.007***	0.007***
Picture similarity score at 3	0.005**	0.005***
SDQ Total Difficulties at 3	-0.008	-0.008**
SDQ Prosocial subscale at 3	-0.009	-0.007
Type of care at 3:		
Relative	-0.023	0.021
Non-relative	0.073	0.026
Centre-based	0.067	0.021
Other	0.246	-0.076
(Ref.: Parents)		
Age starting school	0.002	0.020***

(Table 4.16 continued overleaf.)

TABLE 4.16 (CONTINUED)

	Junior infants	Senior infants
DEIS status:		
Urban Band 1	-0.390*	0.085
Urban Band 2	0.000	0.017
Rural DEIS	-0.050	-0.003
(Ref.: Non-DEIS)		
Gender mix:		
Boys	0.023	0.167**
Girls	-0.197	-0.121*
(Ref.: Coed)		
School size:		
50–99	-0.095	0.007
100–199	0.066	0.016
200–299	0.123	0.023
300–399	0.040	-0.034
400–499	0.160	0.002
500+	0.048	0.003
(Ref.: <50)		
Multi-grade class	-0.029	0.092*
Class size:		
20–24	-0.052	-0.006
25–29	0.052	0.012
30+	0.091	0.014
Male teacher	0.158	0.083*
Teacher experience:		
3–5 years	-0.236*	0.015
5–10 years	-0.216*	-0.010
10–15 years	-0.201±	-0.037
15–20 years	-0.272±	-0.138*
20+ years	-0.316**	-0.144***
(Ref.: <3 years)		
Between-school variation	0.143***	0.017
Between-teacher variation	0.531***	0.110***
Between-child variation	0.489***	0.427***
Schools	1,364	1,954
Teachers	1,672	2,705
Children	2,556	5,686

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

TABLE 4.17 MULTILEVEL MODELS OF THE RELATIONSHIP BETWEEN TEACHER–CHILD RELATIONSHIP, VOCABULARY SKILLS AT AGE 5 AND THE CHILD’S NUMBER SKILLS, AS REPORTED BY THE TEACHER

	Junior infants	Senior infants
Teacher–child warmth	0.038***	0.016***
Teacher–child conflict	-0.007	-0.014***
Naming vocabulary at age 5	0.146***	0.083***

Note: *** $p < .001$; ** $p < .01$; * $p < .05$; ± $p < .10$.

Source: Growing Up in Ireland study.

4.7 CONCLUSIONS

The GUI study provides a rich array of measures of different aspects of children's skills and wellbeing around entry to primary education, including mothers' accounts of the ease of transition to primary school, teachers' ratings of the child's socio-emotional wellbeing and dispositions towards school, a test of vocabulary skills, and teachers' ratings of literacy- and numeracy-related skills. Children are seen as having settled into primary school well, though a small number (4–5 per cent) are often upset or reluctant to go to school while around one-fifth experience occasional such difficulties. Transition difficulties are more apparent for boys, those from lone parent families, those living in urban areas and those with a disability/SEN. A more stimulating home learning environment and closer relationship between child and mother appear to ease transition.

The study collected new information on the quality of the teacher–pupil relationship, as reported by the teacher. Teachers tend to report less close and more conflictual relationships with boys, children from disadvantaged backgrounds and children with disabilities/SEN.

Clear gender differences in children's dispositions and skills are apparent in relation to all dimensions, except number skills where no significant gender difference is evident. Thus, boys achieve lower vocabulary test scores and are seen as having more negative dispositions to school, greater socio-emotional difficulties and poorer literacy-related skills. Children's outcomes at this early stage vary significantly by social background, with children from working-class, non-employed or less highly educated families having more negative attitudes, more socio-emotional difficulties and poorer literacy- and numeracy-related skills. Reflecting differences in their social profile, children attending urban DEIS schools have lower vocabulary test scores and are seen as having poorer dispositions and pre-academic skills. There is some evidence, however, that this gap is somewhat less for the senior infants group, suggesting that school-based learning plays an important role in providing disadvantaged children with the social and pre-academic skills they may not possess on school entry. The largest gap in early outcomes is evident in relation to children with disabilities or SEN.

CHAPTER 5

Conclusions and policy implications

5.1 INTRODUCTION

Recent years have seen a transformation of the early years policy landscape in Ireland, with the rollout of state-funded early childhood education (through the Early Childhood Care and Education (ECCE) scheme) and the introduction of *Aistear: The Early Childhood Curriculum Framework*, which aims to provide a continuity of learning experiences over the transition from preschool to primary school. While previous studies have looked at the impact of early childhood education on child cognitive and socio-emotional outcomes and at perceptions of school readiness (McGinnity et al., 2015; Russell et al., 2016; Ring et al., 2016), there has been little research on children's experiences of the transition to primary school and the factors that facilitate their adjustment to the new setting. This report draws on the *Growing Up in Ireland (GUI)* infant cohort data, which was collected when the children were five years of age, to provide a comprehensive examination of children's preschool experiences, family preparation for sending their children to primary school and teacher perceptions of the skills and dispositions children possess on, or shortly after, school entry. This chapter provides a summary of the main findings of the study and discusses their implications for policy and practice.

5.2 PRESCHOOL EXPERIENCES AND SKILL DEVELOPMENT

The children surveyed in the GUI study were among the first in Ireland to be able to avail of a funded preschool place through the ECCE scheme. Almost all families of the study children (96 per cent) participated in this scheme. Prior to this, children differed in their experience of non-parental care. At nine months of age, four in ten of the study children had been in receipt of non-parental care on a regular basis each week, with a total of 11 per cent in centre-based care. By three years of age, just before the cohort was eligible for the ECCE scheme, a higher proportion (50 per cent) of the children was in receipt of regular non-parental care, with a total of 27 per cent in centre-based care. At both time-points, the use of non-parental, especially centre-based, care is found to be more common among more advantaged families – graduates and those in professional/managerial occupations.

Although participation in the ECCE scheme is found to be high across all groups, take-up levels are somewhat lower among more disadvantaged groups (12 per cent non-take-up for non-employed families) and among those whose children have a disability (9 per cent non-take-up). More advantaged families are more likely to top up the hours provided through ECCE, as are two-parent families. As a result of these patterns, the study children had very different experiences of early

childhood care and education before starting school, although almost all had some experience of a centre-based setting. The extent to which this made a difference to the transition process is discussed further below.

Children are found to differ in their cognitive development before starting school. Language development at the age of three varies markedly by the socio-economic circumstances of the child's family. The highest vocabulary test scores are found among those with graduate mothers and those from professional/managerial families. In the test, girls score better than boys of similar backgrounds. Children from migrant families have poorer English language skills than their peers, with a very sizeable gap at three years of age. A large developmental gap is also evident for children with disabilities. While these patterns are stark, it is important to recognise that family background explains only 4 per cent of the variation in language test scores at this stage, so a range of other factors also shape children's skill development. The influence of early language skills on the integration into primary education is discussed in the remainder of the chapter.

5.3 PREPARING FOR SCHOOL START

The age at starting school has become older over time, with the proportion of four-year-olds in junior infant classes declining from 47 per cent in 1999–2000 to 27 per cent in 2016–2017 (Department of Education and Skills Education Statistics Database).¹⁹ This decline predates the introduction of the ECCE scheme, though a more marked increase in age at school start can be observed after the scheme is rolled out. The extension from September 2018 of funded preschool provision to cover the period from two years eight months to school entry is therefore likely to further increase average age on school entry.

School start tends to be later among more advantaged families in terms of social class, maternal education, household income and family structure. Girls tend to start school slightly earlier, by about a month on average, than boys. Children from migrant families also start school at a slightly younger age. Children with a disability, especially socio-emotional or learning difficulties, tend to start school later than their peers. Timing of birth obviously makes a difference, with summer-born children starting school at an older age. Children attending urban DEIS (Delivering Equality of Opportunity in Schools) schools, especially Urban Band 1 schools, tend to be younger on school entry than those attending other schools. Being older on school entry tends to give a slight advantage to children, in that they have less negative attitudes to school, better language skills, better skills in linking sounds and letters, better reading and number skills, and fewer socio-emotional difficulties.

¹⁹ The Department of Education and Skills' Education Statistics Database is hosted by the Central Statistics Office; see <https://www.education.ie/en/Publications/Statistics/Education-Statistics-Database/>.

Mothers tend to draw on informal advice and information, that is, from friends and other parents, before their child starts school. More highly educated mothers are more likely to use both informal and formal sources of information, including preschool and primary school staff. Almost all mothers reported talking to their child about going to school and over four-fifths had visited the school, attended an information session and practised reading, writing or numbers with the child in preparation for school start. Less advantaged families are somewhat more likely to engage in more formal learning activities such as practising reading.

When asked about the factors that are important in a child's 'readiness' to start school, teachers tend to emphasise practical and socio-emotional skills, such as managing personal care, children being able to communicate their needs, taking turns/sharing, being sensitive to others' feelings and not being disruptive in class. Teachers tend to see more 'academic' skills, such as knowing the alphabet, being able to count and receiving formal reading and maths instruction in preschool, as less important in school readiness, though a sizeable proportion – over one-fifth – see these skills as somewhat important.

Teachers were asked about the kinds of information they received on incoming students. The vast majority (92 per cent) said they received information on whether the children had a special educational need (SEN) and the majority – over two-thirds – knew something about family circumstances and whether the child had attended preschool. An information gap was evident regarding the child's individual strengths and challenges and the skills developed in preschool.²⁰

5.4 EARLY YEARS CLASSROOMS

At the time of the teacher survey, the majority (72 per cent) of children were in senior infant classes, while 28 per cent were in junior infants. One-quarter of five-year-olds were being taught in multi-grade classes (that is, with two or more year groups), and class size varied significantly. Very few (3.6 per cent) of the five-year-olds were being taught by a male teacher and over one-quarter were being taught by a teacher with less than five years' experience.

Play-based activities are a common feature of early years classrooms, but there is a decline in the use of creative and pretend play between junior and senior infants. Creative play is used more frequently in DEIS Urban Band 1 schools and less often in multi-grade classes. A combination of individual work and whole-class teaching is the most common pattern across both junior and senior infant classes, with groupwork and pair work employed frequently only in a minority of classrooms. Whole-class teaching is more commonly used in larger classes. Over half of children are given the opportunity to engage in hands-on activities every day, with this happening to a greater extent in junior infant classes and Urban Band 1 schools

²⁰ Similar issues emerged in recent policy work with a network of preschools and primary schools (see NCCA, 2018a).

and being less frequent in multi-grade classes. Teachers are more likely to read to children every day in (single-grade) junior infant classes and in urban DEIS and boys' schools. In sum, there are marked differences in learning experiences between children in junior and senior infant classes. Because teachers are managing multiple classes, children in multi-grade classes experience fewer play-based and hands-on activities. Teachers in urban DEIS schools, especially Urban Band 1, appear to adapt their practice to engage children, using more play-based and hands-on activities and more reading to the children and counting out loud.

More class time is spent by teachers on English, at an average of four hours per week, followed by maths (three hours), Gaelige (150 minutes) and religious or ethical education (100 minutes). Around one hour per week each is spent on physical education and visual arts, with less time spent on other subject areas. There is a slight increase in the amount of time spent on English and maths between junior and senior infant classes. Teachers in Urban Band 1 DEIS schools spend significantly more time on English than those in other school types.

5.5 SETTLING INTO PRIMARY SCHOOL

Mothers were asked about the extent to which their child had settled into primary school; this information on the transition process is only available on the three-quarters of children who had started school by the time of the home visit. It was found that, in the majority of cases, children look forward to going to school and say good things about school on a frequent basis. Only a small proportion engage in frequent complaining or being upset (4–5 per cent), though occasional difficulties are apparent among one-fifth of children. Girls and children from migrant families are seen as making a smoother transition to the school setting, while more transition difficulties are apparent among those with disabilities, those from lone parent families, those with more older siblings and those living in urban areas. The quality of the relationship with parents and having had a more stimulating home learning environment are associated with an easier transition, while children who have more socio-emotional difficulties at the age of three later have a more difficult transition to school.

There is no evidence that the type of childcare experienced at three, before starting the ECCE scheme, affects the later transition to primary education. The fact that almost all the study children had experienced centre-based care through the ECCE scheme may have overridden any effects of earlier participation. There is some evidence that those who attend smaller schools (with fewer than 100 students) settle in more quickly than those in larger schools.

5.6 CHILDREN'S SKILLS AT SCHOOL ENTRY

During the home visit, children were administered the British Ability Scale (BAS) vocabulary test as a measure of verbal skills. Because GUI is an age rather than

stage cohort, three-quarters of the children completed this test while they were in the last terms of junior infants, while one-quarter did the test before entering primary school. Some months later, when all children had started school, teachers were asked to rate the five-year-olds across a number of dimensions of skill and competency development. Because of the different timing of school start, children at this point were spread between junior and senior infant classes. The class level is taken into account in the analyses. In order to look at commonalities and differences in the factors associated with different outcomes, Table 5.1 presents a summary of the analyses discussed in Chapter 4.

TABLE 5.1 SUMMARY OF ANALYSES OF THE CHILD AND FAMILY FACTORS ASSOCIATED WITH CHILD OUTCOMES AT AGE 5

Outcome	Gender	Social background	Migrant status	Disability/SEN	Verbal skills at 3	SDQ at 3	Verbal skills at 5	Quality of interaction with teacher
Verbal skills at 5	Higher among girls.	Higher where maternal education is higher.	Greater progress relative to verbal skills at 3.	Lower.	Higher where higher test scores.	Lower where more difficulties.	n.a.	n.a.
Teacher reported outcomes:								n.a.
Positive teacher-child relationship	More positive for girls.	Professional, managerial and non-manual more positive.	Lower.	Lower.	Higher where higher test scores.	NS	n.a.	n.a.
Conflictual teacher-child relationship	More conflictual for boys.	Working-class, non-employed and lower education more conflictual.	NS	Much higher.	NS	Higher where more difficulties.	n.a.	n.a.
Negative attitudes and dispositions to school	More negative among boys.	Working-class, non-employed and lower education more negative.	NS	Much more negative.	More negative where lower test scores.	More negative where more difficulties.	More negative where lower test scores.	More negative: where relationship is more conflictual; and where it is and less positive.
Poorer language skills	Poorer among boys.	Poorest among non-employed and families with lower education.	Slightly poorer.	Much poorer.	Poorer where lower test scores at 3.	Poorer where more difficulties.	NS	Poorer where relationship is more conflictual and/or less positive.
Skills in linking sounds and letters	Better among girls.	Poorer among non-employed and families with lower education.	NS taking account of earlier skills.	Poorer.	Better where higher test scores at 3.	Better where fewer difficulties.	Better where higher test scores.	Poorer where relationship is more conflictual and/or less positive.

(Table 5.1 continued overleaf.)

TABLE 5.1 (CONTINUED)

Outcome	Gender	Social background	Migrant status	Disability/SEN	Verbal skills at 3	SDQ at 3	Verbal skills at 5	Quality of interaction with teacher
Reading skills	Better among girls.	Poorer among working-class, non-employed and families with lower education.	NS taking account of earlier skills.	Poorer.	Better where higher test scores at 3.	Better where fewer difficulties.	Better where higher test scores.	Poorer where relationship is more conflictual and/or less positive.
Number skills	NS	Poorer among working-class, non-employed and families with lower education.	Slightly greater progress relative to verbal skills at 3.	Poorer.	Better where higher test scores at 3.	Better where fewer difficulties.	Better where higher test scores.	Poorer where relationship is more conflictual and/or less positive.
Socio-emotional difficulties (SDQ total)	More difficulties among boys.	More difficulties among working-class, non-employed and families with lower education.	NS	More difficulties.	Fewer difficulties where higher test scores at 3.	More difficulties at 5 where had more difficulties at 3.	Fewer difficulties where higher test scores.	More difficulties where relationship is more conflictual and/or less positive.
Prosocial behaviour	Better among girls.	NS	Poorer.	Poorer.	Better where higher test scores at 3.	NS with difficulties and prosocial behaviour at 3, when mother's rating at 5 is taken into account.	Better where higher test scores.	Poorer where relationship is more conflictual and/or less positive.

Notes: NS = not statistically significant n.a. = not applicable. Where patterns differ between junior and senior infants, the results for the larger senior infants group are used.

Source: *Growing Up in Ireland* study.

5.6.1 Child and family factors

Clear gender differences are apparent, even at this early stage. Girls achieve higher scores on the verbal skills test at the age of five than boys and receive more positive ratings from their teachers across almost all dimensions. Thus, boys are seen as having more negative dispositions to school, poorer language and reading skills, and poorer skills at linking sounds and letters. Boys are rated by their teachers as having more socio-emotional difficulties than girls, while girls are seen as having better prosocial behaviour. Furthermore, teachers are more likely to characterise their relationship with female students as more positive (warmer or closer) and less conflictual. The only outcome where no gender gap is reported is in relation to number skills, where no significant differences are found between boys and girls.

Social background emerges as an important differentiating factor in children's outcomes in the early years of primary school. Children with graduate mothers have better verbal skills, according to the BAS measure. In relation to teacher ratings, children from families with lower levels of education and from working-class or non-employed groups are characterised as having more negative attitudes, poorer language and reading skills, poorer skills in linking sounds and letters and poorer number skills. Children from more disadvantaged families are rated as having more socio-emotional difficulties but do not differ in their levels of prosocial behaviour. Research on second-level students has pointed to the more negative dynamic of teacher–student relationships among working-class young people (see, for example, Smyth, 2016). Analyses presented in this report point to the early roots of such a dynamic, with teachers describing a warmer relationship with middle-class children and a more conflictual one with children from working-class or non-employed households.

This study provides new insights into the integration into primary education of children from migrant backgrounds. The picture is a complex one. Some of the difference in (English language) verbal skills at the age of three is carried on to school entry in relation to some outcomes, including teacher rating of language and reading-related skills. At the same time, there is some evidence of a closing of the gap in relation to some dimensions, with children from migrant families making slightly greater progress in objective verbal skills and teacher-rated number skills at five relative to their verbal skills at the age of three. Children from migrant families do not differ from other children in the level of socio-emotional difficulties but are described by their teachers as displaying less prosocial behaviour, perhaps reflecting differences in language skills. Teachers describe a less close relationship with migrant children but the degree of conflict does not differ by migrant status.

Similarly, new information is provided on the transition to primary school among children with disabilities. There is a gap in verbal skills test scores, with children with disabilities achieving significantly lower scores at the age of five. Teachers

describe children with disabilities as having more negative attitudes to school and poorer language, reading-related and number skills. On average, children with disabilities are rated as having more socio-emotional difficulties and poorer prosocial behaviour. Of concern is the fact that, even at this early stage of schooling, teachers view their relationship with children with SEN as being less close and much more conflictual.

Table 5.1 also shows that children's cognitive development and socio-emotional wellbeing at the age of three are predictive of how they will fare over the transition to primary school. Children with better verbal skills at the age of three have better verbal test scores two years later and are assessed as having better outcomes by their teachers. These children have fewer socio-emotional difficulties and display more prosocial behaviour. They also have warmer relationships with their teachers on school entry. On the other hand, children who have more socio-emotional difficulties at the age of three (as rated by their mothers) have more negative attitudes to school and poorer verbal, reading-related and number skills two years later. They also tend to have a more conflictual relationship with their teacher.

Information on the quality of the relationship between teacher and child and on the child's school-related skills is collected at the same time so it is difficult to disentangle causality. Teachers may rate children as having poorer skills if they have a conflictual relationship with them and/or having a poor relationship with their teacher may have an impact on a child's skill development (as has been shown in relation to second-level students; see Smyth, 2016 and 2017). Nonetheless, it is worth highlighting that even at the age of five, a group of children is identifiable – disproportionately boys, from working-class backgrounds and/or with special educational needs (SEN) – who have poorer skill development and poorer quality relationships with their teachers.

5.6.2 School differences in child outcomes

The analyses presented in Chapter 4 explored whether child outcomes varied by the type of school attended. Given that the children surveyed will have been in that school for a maximum of 1.5 years, between-school differences cannot be regarded as reflecting the *effect* of being in a particular school. However, it is worth examining whether children come to different types of schools with different levels of prior skills and whether they may be evaluated differently by teachers across different school contexts.

TABLE 5.2 SUMMARY OF ANALYSES OF THE RELATIONSHIP BETWEEN SCHOOL TYPE AND CHILD OUTCOMES AT AGE 5

Outcome	DEIS status (raw difference between schools)	Gender mix (adjusted for gender and social background)
Verbal skills at 5	Lowest test scores among those entering Urban Band 1 schools; rural DEIS scores equivalent to non-DEIS.	NS
Teacher reported outcomes:		
Positive teacher–child relationship	NS	Teachers report less closeness with girls attending girls’ schools than in coeducational schools.
Conflictual teacher–child relationship	More conflictual in Urban Band 1 schools; patterns for rural DEIS equivalent to non-DEIS.	NS
Negative attitudes and dispositions to school	More negative in urban DEIS schools; patterns for rural DEIS equivalent to non-DEIS.	Teachers report more positive attitudes to school among boys in boys’ schools than among boys in coeducational schools.
Poorer language skills	Poorer in Urban Band 1 schools; patterns for rural DEIS equivalent to non-DEIS; Urban Band 2 patterns are closer to rural/non-DEIS than to Urban Band 1.	Teachers report slightly better skills among boys in boys’ schools than among boys in coeducational schools.
Skills in linking sounds and letters	For junior infants, lowest ratings for children in Urban Band 1 schools; gap in scores is less at senior infants level.	NS
Reading skills	For junior infants, lowest ratings for children in Urban Band 1 schools; gap in scores is less at senior infants level.	NS
Number skills	For junior infants, gap between urban DEIS schools and other schools; gap in scores is less at senior infants level.	Teachers report better skills among boys in boys’ schools than among boys in coeducational schools, while they report poorer skills among girls in girls’ schools than in coeducational schools.
Socio-emotional difficulties (SDQ total)	Greater in Urban Band 1 schools and, to some extent, Urban Band 2 schools; patterns for rural DEIS equivalent to non-DEIS.	Teachers report fewer difficulties among boys in boys’ schools than among boys in coeducational schools.
Prosocial behaviour	Slightly lower levels among children in urban DEIS schools.	Teachers report more prosocial behaviour among boys in boys’ schools than among boys in coeducational schools, while they report less prosocial behaviour among girls in girls’ schools than in coeducational schools.

Note: Where patterns differ between junior and senior infants, the results for the larger senior infants group are used.

Source: *Growing Up in Ireland* study.

Table 5.2 shows that children who (go on to) attend Urban Band 1 DEIS schools have significantly lower verbal skill test scores than those who go on to other school types. This group of children is also rated by their teachers as having poorer language skills than their peers, while those in Urban Band 1 and Band 2 schools are characterised as having more negative attitudes to school. Across these

outcomes, children attending rural DEIS schools are very similar to their counterparts in non-DEIS schools. In relation to more school-specific skills, such as linking sounds and letters, reading and number skills, a social gradient is evident among the junior infant group, with the lowest skill ratings found for those in Urban Band 1 schools. However, differences are less marked among the senior infant group, indicating that exposure to school-based learning may have reduced the gap somewhat, a pattern that may reflect the strong emphasis in urban DEIS classrooms on pre-reading, reading and number skills (see above and Chapter 3). Teachers report greater socio-emotional difficulties among children in Urban Band 1 and, to some extent, Urban Band 2 schools, as well as a more conflictual relationship with these children. The differences found by DEIS status of the school relate to the greater concentration of children from socio-economically disadvantaged families in these schools and to the greater prevalence of disability or special educational need (SEN). There is no evidence at this stage of the so-called 'multiplier effect', that is, where the concentration of disadvantage in certain schools results in poorer outcomes. In fact, there does seem to be a slight closing of the gap in some school-related skills over the early years of primary education.

Just one-tenth of five-year-olds are taught in a single-sex setting so this group is quite distinctive in terms of family and child characteristics. Taking account of the different intake characteristics in single-sex schools, it is possible to explore whether children are evaluated differently according to the gender mix of the school. The findings in Table 5.2 show that teachers report more positive attitudes to school, better language skills and fewer socio-emotional difficulties among boys attending boys' schools compared with boys with similar characteristics who go to coeducational schools. The pattern for number skills seems to suggest some gender stereotyping, with boys in single-sex schools being rated more highly while girls in single-sex schools are rated more negatively than their peers in coeducational schools. It is difficult at this early stage to determine whether these differences relate to the 'effect' of being in a single-sex setting or a reference group effect, whereby teachers contrast boys with 'more engaged and better behaved' girls in the same class. The evidence would appear to support a reference group effect since the gender gap is larger in teacher-rated skills than in the objective test of vocabulary skills administered by the interviewers. Furthermore, additional analysis (not shown here) indicates that the gender gap in teacher-related socio-emotional difficulties is much larger than that reported by mothers. Even if the differences found in the gender gap between single-sex and coeducational settings relate, at least in part, to the comparison teachers make between different pupils in their class, they may nonetheless have longer-term implications as teacher

feedback and expectations have been found to be significant influences on child experiences and outcomes.²¹

5.7 IMPLICATIONS FOR POLICY

5.7.1 The transition process

The early years landscape in Ireland has seen significant changes in recent years, with the rollout of funded part-time places in early education through the ECCE scheme and the introduction of the Aistear Curriculum Framework. As a result, almost all children entering primary school have prior experience of centre-based education and care. The success of the ECCE scheme in terms of take-up levels means that it is not possible to determine whether taking part in preschool education has an impact on the transition to primary school, as hardly any of the study children did not take part.²² Parents are almost universally positive about the care their children receive under the scheme (see McGinnity et al., 2015). However, there has been a lack of systematic information on the quality and content of early childhood education, though small-scale research suggests that some primary teachers are critical of the ‘overly academic’ approach adopted in some preschool settings (NCCA, 2018a). There is therefore a lack of Irish research on early childhood education quality and its implications for later child outcomes; such research would form a vital evidence base for policy development in the area.

In the GUI survey, primary teachers reported a lack of knowledge of the skills and capacities developed by children before they start school and the kinds of activities they have engaged in during preschool. There are existing examples of good practice at local level in the development of transfer documentation for children (see O’Kane and Murphy, 2016a) but the evidence from teachers in the GUI study suggests that these practices are the exception. Work is currently underway by the NCCA on developing transfer templates to help ensure an exchange of information between early childhood practitioners and primary schools. The use of such transfer documentation across all settings nationally is likely to facilitate communication between care and education providers and to provide greater continuity of learning opportunities over the transition process. However, it appears evident that the transfer of information needs to be part of broader efforts to facilitate the transition into primary education (NCCA, 2018a). The fact that transition difficulties are more common among certain groups of children (especially boys and those with disabilities) provides an important evidence base

²¹ Later waves of the GUI study will allow for a more detailed exploration of the trajectories of children in single-sex and coeducational schools.

²² The scheme may have had a positive impact on all of those taking part but because we do not have data on children who were too old to qualify for the scheme, we cannot identify any such difference using GUI data.

for school principals and teachers in developing supports for children to assist them in integrating into the new setting.

5.7.2 Learning at home and at school

The findings point to the important role of parents in fostering a learning environment at home, with children who have been read to frequently by, and engaged in creative and educational activities with, their parents settling more quickly into primary school. A more stimulating home learning environment also provides children with the vocabulary skills they need to communicate with their teachers and peers and engage in the primary curriculum. Parents tend to engage in a range of activities, such as visiting the school and talking about school, to help their children prepare for starting school. The high level of communication between parents and teachers at this stage of the primary career offers the potential for schools to further involve parents in supporting their children's learning.

The kinds of learning opportunities offered to children in the early years of primary education vary by the type of school and classroom they attend. Some of this variation appears to reflect the targeting of certain approaches towards children who may require additional support. Thus, teachers in urban DEIS schools make greater use of play-based learning to encourage children's engagement but also place a greater emphasis on reading and number skills. In addition, teachers in boys' schools place greater emphasis on reading, presumably in response to the emerging gender gap in reading activities outside school, even at this early stage (see Smyth, 2016). However, some of the variation seems to be, at least partly, driven by logistical constraints. Thus, whole-class teaching is more commonly used with larger classes and children at junior infants level in multi-grade classes appear to have less exposure to play-based learning and being read to than their counterparts in single-grade settings. This pattern points to the importance of differentiation in class activities, so that all children have the opportunity to experience play-based and hands-on activities. More generally, there appears to be a reduction in the variety of play-based learning activities over the transition from junior to senior infants, suggesting that there may be greater potential to provide children in the early years with a more playful experience of learning. The findings in this study align with views expressed in the consultation on primary curriculum time and structure, where many respondents felt that schools lacked the necessary support and resources to use child-led play (NCCA, 2018b). There was broad agreement for using a more integrated curriculum structure for infant classes, and the challenge of using a play-based pedagogy with a subject-based curriculum was highlighted (NCCA, 2018b).

5.7.3 Equity in child experiences and outcomes

The study findings reveal that the socio-economic circumstances of the families into which children are born significantly shape their cognitive and non-cognitive skills and capacities before and on school entry, in keeping with the findings of international studies (see, for example, Sylva et al., 2010). Thus, children whose parents hold professional/managerial jobs and/or have third-level degrees have better verbal skills and fewer socio-emotional difficulties at the age of three than those whose parents hold working-class or no jobs and have lower levels of educational qualifications. This social gradient remains evident two years later and, after the transition to primary school, children from more disadvantaged backgrounds are seen as having more negative dispositions towards school and poorer language, reading-related and number skills. These differences are only partly influenced by the extent to which parents engage in learning activities with children and have more children's books in the home. Parental education is found to have a direct influence on child outcomes, even taking account of other factors. International research indicates that social differentiation in foundational skills such as literacy and numeracy has a long-term effect on educational and socio-emotional outcomes (see, for example, Sammons et al., 2015). While the social gradient in skills development undoubtedly reflects unequal access to economic, cultural and social resources more generally, it is of concern that, even at this early stage, children from more disadvantaged backgrounds experience poorer quality relationships with their teachers; that is, less close and more conflictual relationships, than those from more advantaged backgrounds.

Because of residential segregation and patterns of school choice, the social profile of children varies across different kinds of schools. Children who go on to attend urban DEIS schools, especially those in Urban Band 1, have poorer verbal skills at the age of three. On school entry, they are characterised as having more negative attitudes to school, poorer skills in relation to communication, reading and numbers, and greater socio-emotional difficulties. The gap in skill development between those in urban DEIS and other schools at senior infants level is slightly narrower, suggesting that exposure to school-based learning appears to boost the skills of more disadvantaged children. As with previous research (see, for example, McCoy et al., 2014; Smyth et al., 2015), little difference is found in skill development between those in rural DEIS and non-DEIS schools, suggesting the need to target additional resources towards children in disadvantaged urban settings. As has been argued previously (Smyth et al., 2015), the majority of children from disadvantaged backgrounds do not attend DEIS schools and therefore do not receive additional supports on the basis of their socio-economic circumstances, highlighting the potential value of providing some, albeit tapered, supports to disadvantaged groups across all school settings.

Previous analyses of the GUI study have highlighted the challenges in securing genuine inclusion for children and young people with special educational needs (SEN) (Banks and McCoy, 2011; McCoy and Banks, 2012). The current study findings indicate that such challenges are evident from the early years of primary education, with five-year-old children with SEN experiencing a more difficult transition to school and having poorer academic skills and socio-emotional wellbeing. Further research would be worthwhile in unpacking the extent to which child experiences and outcomes vary by type of SEN. Of concern is the fact that teachers describe their relationships with children with SEN as less warm/close and more conflictual than they do regarding their relationships with other children.

A significant gender gap in educational experiences and outcomes has been well documented in Ireland and internationally (Skelton et al., 2007), although there is relatively little consensus about the drivers of these patterns. The study findings point to significant differences between girls and boys in their academic and non-cognitive skills, with girls rated more positively in terms of their communication, language and reading skills, and behaviour. These gender patterns are at least partly explained by variation in the quality of the teacher–student relationship, with teachers feeling they have closer and less conflictual relationships with their female students. It is difficult to disentangle the extent to which the patterns reflect *actual differences* in cognitive and non-cognitive skills or *perceptions* of these differences. Girls perform better on objective tests of verbal skills at the ages of three and five and are characterised by their mothers as having fewer socio-emotional difficulties. However, there is at least tentative evidence of some degree of gender stereotyping at play. Firstly, the gender gap in teacher-rated skills is larger than that in test-based assessments. Secondly, in single-sex schools, where boys are not being compared with girls, they tend to be rated more positively by their teachers across many of the domains. The gender gap in skills and dispositions at the age of five is of significant policy concern as negative school experiences are likely to set the tone for later disengagement and underachievement. International experience suggests that the gender gap in educational outcomes is not readily amenable to policy interventions (see Smyth, 2007). However, recent research (Legewie and DiPrete, 2012) indicates that boys may be more responsive to learning-oriented school environments, suggesting that school climate may be a crucial factor in engaging boys.

A recurring theme emerging from the analyses is the importance of the quality of the teacher–student relationship. While it is difficult to determine whether teachers rate child outcomes more negatively because they have a conflictual relationship with them or children react to more difficult relationships by disengaging, it is clear that even at this early stage of the educational career, differences in the teacher–student relationship are evident and these differences are structured by gender, social background and having a SEN. In policy terms, these findings highlight the importance of emphasising a positive school and

classroom climate and of supporting student and practising teachers to build positive relationships with all students. There are implications for initial and continuous teacher education in finding means of contesting the ways in which some groups of students become seen as 'challenging' within the classroom context. Future waves of the GUI survey will allow for a more detailed analysis of the extent to which these early relationships and experiences set the tone for later educational engagement.

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