Growing Up in Ireland
National Longitudinal Study of Children

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INFANT COHORT

Report on the Pilot Phase of Wave Three, Infant Cohort (at 5 Years of Age)

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Chapter 1

DESIGN AND IMPLEMATION – HOUSEHOLD PHASE

1. DESIGN AND IMPLEMATION – HOUSEHOLD PHASE

1.1 INTRODUCTION

This report presents details on both the home- and school-based pilot work carried out for the Infant Cohort at five years of age. The first part of this report (Chapters 1 to 9) will concentrate on the home-based component, while the second will focus on the school-based aspect (Chapters 10 to 15). The report focuses on the design and implementation of the household and school-based pilots, sampling strategies and response rates, the various instruments and measures used in the pilot (Primary and Secondary Caregiver main and sensitive questionnaires; non-resident parent questionnaire; child measures such as the British Ability Scales, and standardised scales used in the study), and consents and permissions for data linkage.

A detailed discussion of these themes is provided, as well as details on any amendments or changes which were recommended by the Study Team as a result of the pilot work, before moving forward towards the main phase of the study.

All questionnaires, related instrumentation and documentation which were used in the pilot are included in Appendix A in this document.

1.2 FIELDWORK

Fieldwork for the household phase of the pilot work was carried out between 8th October and 5th November 2012. A total of 198 families were approached for this phase of the study, of which 162 took part. The main informants were the Primary and Secondary Caregivers of the Study Child and the child him/herself. The main caregivers completed CAPI (computer-assisted personal interview) and CASI (computer-assisted self-complete interview) questionnaires; the child completed the British Ability Scales Picture Similarities and Naming Vocabulary tests as well as the Pediatric Quality of Life Inventory (PedsQL)[1].

As well as the testing of all general aspects of the questionnaire design, content and timings, of particular interest in this pilot was the recording of information on the child's preschool and education experience, including the transition to first-level. Details on the primary school attended were therefore critical for the rolling-out of the next phase of piloting in the schools.[2] This school pilot is discussed in detail in Part II of this report.

The introduction of the Pediatric Quality of Life Inventory and the Social Skills Improvement System–Rating Scales (SSIS-RS) were important innovations in this phase of the study, as well as the use of a substantially enhanced version of a module on food frequency and diet.

[1] The American spelling for the Pediatric Quality of Life Inventory (PedsQL) is used throughout this report.
[2] The school attended by the Study Child was recorded in the course of the home-based interview. This information was for use in the school-based pilot carried out between mid-November 2013 and mid-February 2014, and is discussed in Part II of this report.

A further important aspect of the study was the scope of the sample used in the pilot. The issue involved here was whether or not one should return only to the sample of families who had participated in the second round of the project, or whether or not one should also include families who had participated in Wave One (at 9 months) but not in Wave Two. Section 3.3 (in Chapter 3) below outlines the response at Wave Three among families who did not participate at Wave Two.

The target informants in families were the Primary and Secondary Caregivers as well as the Study Child. The family was given the opportunity to change Primary and Secondary Caregivers between phases two and three (even in situations in which there was no change in family composition). The CAPI (computer-assisted personal interview) for the household grid and interrelationships accommodated changes or transposition of main caregivers, regardless of interwave changes (or otherwise) in family composition, so that such changes would be recorded in the dataset.

Each family was sent an information pack with a letter inviting them to participate. The interviewer followed this up with a personal visit (in contrast to a phone call) to each family.

The Primary Caregiver signed a new consent form for Wave Three. The full list of household instruments is set out below:

1. Primary Caregiver – main questionnaire
2. Primary Caregiver – sensitive questionnaire
3. Secondary Caregiver – main questionnaire
4. Secondary Caregiver – sensitive questionnaire
5. Weight of Primary and Secondary Caregivers (and height for new participants or those for whom height was not available from previous rounds).
6. Weight and height of Study Child
7. Naming Vocabulary from British Ability Scale (2nd edition)
8. Picture Similarities from British Ability Scale (2nd edition)
9. GPS coordinates (if family had moved address since Wave Two or information was unavailable or implausible from previous rounds)
10. Non-resident parent questionnaire
11. Tracing information / alternative contact details for subsequent rounds
12. Work Assignment Sheet

Items 1-4: Primary Caregiver and Secondary Caregiver questionnaires. The 'main' questionnaire was administered by the interviewer using CAPI. The 'sensitive' questionnaire was self-completed using CASI.

Item 5: Weights were recorded for all respondents. Heights were recorded for all children and only for Primary and Secondary Caregivers where the information was not available from previous rounds of the study. Medically approved weighing scales and stadiometers were used.

Items 7-8: The Naming Vocabulary and Picture Similarities sub-scales from the British Ability Scale (BAS) were administered by the interviewer, and answers were recorded on laptop. The standard BAS manuals and prompt cards were used with the Study Child.

Item 9: GPS coordinates were recorded only where they were not available from previous rounds or where the family had changed address between waves.

Item 10: The non-resident parent questionnaires were being administered at time of writing on a split sample basis – half on a purely postal basis and the remaining half on a phone basis. Only three sets of valid contact details were secured in the course of the pilot, from 12 families where the child's biological father was living elsewhere.

Item 11: Tracing information / alternative contact details were recorded from all families with a view to using them to locate the family in subsequent waves.

Item12: The Work Assignment Sheet was the main administrative worksheet used by the interviewer, containing contact and related details.

1.3 TRAINING THE INTERVIEWERS

Interviewer training took place in Dublin. A total of 23 interviewers worked on this pilot phase of the study. All interviewers had previously worked on other phases of ***Growing Up in Ireland*** and, depending on their level of experience, training took place over two, three or four days.

Interviewer training covered a range of topics, including a review of the content of all questionnaires, review of CAPI including role play, administration of cognitive assessments and Pediatric Quality of Life Inventory, child-protection guidelines and incident reporting, ethics, and a review of best practice in interviewing, especially in the family context.

Despite prior experience on the project, only interviewers who were assessed at the end of training to have met an acceptable standard were assigned work on the pilot phase. The assessment criteria were:

1. Understanding of the interview process and procedure
2. Competence with the laptop
3. Communications and interpersonal skills
4. Attendance at training

In addition to Garda vetting and appointment as Officers of Statistics, all interviewers working on the pilot were required to provide:

1. a recent employer's reference or, where this was not available, a character reference
2. a declaration of appropriate health and fitness signed by their GP
3. confirmation of Class 2 car insurance on their motor policy
4. a copy of their valid driving licence

1.4 IN THE HOUSEHOLD

1.4.1 IDENTIFYING THE PRIMARY CAREGIVER AT WAVE 2

In the household, the interviewer attempted to interview the Primary Caregiver of the child (usually the mother) and his/her spouse partner (usually, but not necessarily, the father of the child). The

Primary Caregiver was self-defined by the family as the person who provided most care to the child and was most knowledgeable about his/her development. If the Primary Caregiver from Wave 2 was still resident in the household but no longer defined as the Primary Caregiver at Wave 3, s/he was asked to review the household grid (based on the forward feed of information which s/he provided in Wave 2) and make any changes/updates as necessary before the main interview started with the new Primary Caregiver. The Wave 2 Primary Caregiver, where still resident in the household, was asked to complete the Secondary Caregiver interview in the Wave 3 pilot.

For example, if the mother was the Primary Caregiver in Wave 2 but the father provided most care to the child at Wave 3, then he completed the main interview as the Primary Caregiver at Wave 3, after the mother had reviewed the household grid information which she had provided in Wave 2. The mother would then be asked to complete the Secondary Caregiver interview for Wave 3. In a situation like this (where the Primary and Secondary Caregiver switched between waves), the Primary Caregiver from Wave 2 was asked to review and amend the information given at Wave 2 to honour the guarantees of confidentiality given to the Primary Caregiver at that time, when s/he was told that no-one (including a spouse or partner) would have sight of the information which s/he gave to the interviewer. That information included the household grid. If the Primary Caregiver from Wave 2 was no longer resident in the household, a new household grid was completed with the new Primary Caregiver for Wave 3. The pilot showed that there was a real need for this facility as Primary and Secondary Caregiver roles changed for several families between phases two and three of the pilot. The CAPI questionnaire used in the pilot was able to accommodate this change quite easily.

1.4.2 CONDUCTING THE INTERVIEW

The main interviews with each adult were administered by the interviewer, using CAPI. As each interview questionnaire was completed, it was 'locked down' so that the questionnaire could not be re-opened in the field by the interviewer (or anyone else). The more sensitive questions were included in a Computer-Assisted Self-report Interview (CASI) format as the Primary Caregiver and Secondary Caregiver 'sensitive questionnaires'. Respondents could request that the sensitive questionnaires be administered to them by the interviewer in the same way as the main questionnaire was administered (provided there was no-one else present), or to self-complete by paper if they did not want to use the laptop. No families took up this offer in the pilot phase.

1.4.3 COGNITIVE ASSESSMENT AND PEDIATRIC QUALITY OF LIFE INVENTORY (PEDSQL)

Details on the administration of the BAS Naming Vocabulary and Picture Similarities as well as the Pediatric Quality of Life Inventory (PedsQL) tests are given in Chapter 7. In summary, the interviewers administered these directly to the Study Child, using the original test materials from both (BAS and PedsQL) but used the CAPI system to record correct/incorrect scores and guide the correct sequencing of items.

1.4.4 PHYSICAL MEASUREMENTS

Interviewers took the height and weight of the children. They also measured the weight of both caregivers. The measurements were recorded on the laptop. The height of children and adults was

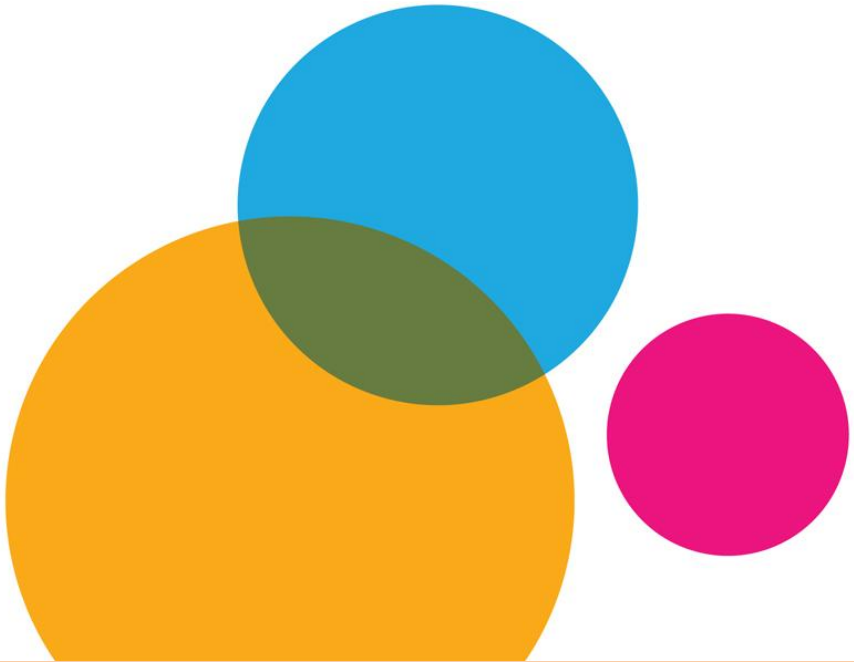
measured using a Leicester measuring stick. Adults were weighed using SECA analogue scales. Child weight was measured using the SECA digital child scales, as used at three years of age.

1.5 INTERVIEWER DEBRIEFING

The main issue which arose from the interviewer debriefing session was that Section G in the Primary Caregiver main questionnaire, referring to details on School/Childcare/Preschool, was particularly onerous and repetitive for the respondents. Other areas which were spontaneously commented upon as having been negatively received by respondents were the PedsQL and the Social Skills Improvement System–Rating Scales (SSIS-RS). These are discussed in detail in the appropriate sections of this report. The overall length of the visit in the home was felt to be excessively long by the interviewers. Quality assurance questionnaires on the respondent's experience of their participation in the study were sent to all respondents after their interview. The length of the questionnaires was spontaneously referred to as an issue by a small number of respondents in these quality assurance questionnaires.

Chapter 2

SAMPLE AND RESPONSE RATES



2. SAMPLE AND RESPONSE RATES

2.1 INTRODUCTION

In this chapter issues concerning the sample used in the pilot along with response rates and the target sample for use in the main study in 2013 are considered

2.2 POPULATION AND SAMPLE

Growing Up in Ireland was based on a fixed panel design. The design was fixed in the sense that the sample in each round was adjusted to take account only of children definitively identified as having left Ireland to live elsewhere or who had deceased between rounds of interviewing. On this basis, the sample at the third round of interviewing was representative of five-year-olds who were resident in Ireland at nine months of age and continued to be resident there when they were five years old. Clearly, some five-year-olds resident in Ireland at the time of the third interview will not have been resident here when the first interview took place. They are not included in either the sample or population of five-year-olds in ***Growing Up in Ireland***'s fixed design model.

In implementing the fixed design model, two options presented themselves for the pilot sample. Option A involved approaching all families who had participated in Wave 1 of the project, regardless of their participation at Wave 2. Three groups were excluded. The first was made up of families who had been definitively identified as having moved outside Ireland between Waves 1 and 2. The second group were families where the Study Team had been made aware of the Study Child having deceased between interviews. The third group included the small number of families who had given a very strong refusal at Wave 2 and who said we should not under any circumstances return to their home in future rounds of the study.

Option B involved approaching only those families who had been successfully interviewed at the second round of interviews and not returning to families who had not participated at that time, for whatever reason.

The Research Ethics Committee agreed that, by being invited to participate in the pilot for Wave 3 of the project, the families were being given every opportunity to refuse or otherwise opt out. It gave ethical approval to adopt the Option A sample in the pilot and assess respondent reaction to it. Accordingly, the sample used in the Wave 3 pilot was the effective (interviewed) sample of the Wave 1 pilot, regardless of outcome in Wave 2.

2.3 RESPONSE

Table 2.1 outlines sample response rates in phases two and three of the pilot. Column A of the table shows that at phase two (when the children were three years of age) 209 families were included in the pilot sample, six of whom were identified in the course of fieldwork as having moved outside the country. This left 203 families validly in the target sample for the Wave 2 pilot (209 minus the six families who had left the country).

The final sample used in the third phase included these 203 valid families, with the exception of five families identified at Wave 3 as 'non-participants'. For example, one family gave a very strong refusal at Wave 2, and four families had moved house but no forwarding address was available, despite tracing (including through the Child Benefit Register). This left a target sample of 198 families in the pilot at Wave 3.

Table 2.1: Response rates in pilot phase, Infant Cohort at 5 years of age

	A		B									
	Phase 2 response (3 yrs)		Phase 3 response (at 5 years of age) by: Outcome in Phase Two (at 3 years of age)									
			Completed, ph2		Refused, ph2		No contact, ph2		Other, ph2		Total	
Outcome	**N.**	**%**	**N.**	**%**	**N.**	**%**	**N.**	**%**	**N.**	**%**	**N.**	**%**
Completed	179	88.2	158	90.8	3	25.0	0	0.0	1	25.0	162	84.4
Refused	14	6.9	7	4.0	3	25.0	0	0.0	2	50.0	12	6.2
No contact	2	1.0	2	1.1	3	25.0	0	0.0	0	0.0	5	2.6
Moved, no address	4	2.0	1	0.6	2	16.7	2	100.0	1	25.0	6	3.1
Other	4	2.0	6	3.4	1	8.3	0	0.0	0	0.0	7	3.6
Total	203	100.0	174	100.0	12	100.0	2	100.0	4	100.0	192	100.0
Moved outside Ireland	6		5		1		0				6	
Refusal of Phase 2 not issued in Phase 3					1							

Section B of the table provides details on the outcomes in the phase three pilot, broken down according to outcome in phase two. The phase two outcomes are broken down according to Completed, Refused, No contact and Other.[3]

In summary, the pilot indicated a response rate of just over 90 per cent among the families who had participated at Wave 2. As anticipated by the Study Team, the response among Wave 2 non-participants was substantially lower. This, in large part, reflects the intensity of refusal conversion in the earlier phase. On completion of phase two fieldwork, the families in the 'refusal' category were very firm refusals who were unlikely to be successfully recruited back into the study at subsequent waves. Overall, the absolute number of cases involved in these groups is too low to allow one to make any firm inferences about likely trends in the main study, but the figures suggest a response among these groups of the order of no more than 20-25 per cent.

A total of 11,134 families completed their questionnaires in the first phase of ***Growing Up in Ireland*** at nine months (representing a response rate of 64.3 per cent). On the basis of the pilot experience, the sample included in Wave 3 were: (i) all families who had participated at Wave 2; (ii) Refusals in Wave 2;

[3] The four 'Moved, no forwarding address' of Wave 2 were not included in the Wave 3 pilot.

(iii) 'Other' outcomes in Wave 2. This meant that the target sample for Wave 3 broke down as in Table 2.2 below, in terms of the family's response outcome in Wave 2.

Table 2.2: Proposed breakdown of sample to be issued in Wave Three of the Infant Cohort (at 5 years) according to family's outcome at Wave Two

To be issued in Wave Three	N	Not issued in Wave Three	N
Completed in Wave Two	9,801	No longer in Ireland	327
Refused in Wave Two	640	Deceased	5
'Other' outcome in Wave Two	156	Strong refusal in Phase Two	61
		Not at address, no forwarding address in Phase Two	144
Total	**10,579**	**Total**	**537**

The table indicates that 640 families were contacted who had refused at three years of age, and 156 for whom an 'Other' outcome was recorded. This latter outcome included a range of issues such as a new birth or a death in the family; no time to participate now; not available throughout fieldwork period, and so on. Table 3.2 also shows that the 61 families who gave a strong refusal at Wave 2 were not contacted. A further 144 families were identified in Wave 2 as no longer resident at the address available to us, but with no forwarding address available. Where permission had been secured from the family in the first phase of the study to do so, an attempt was made to locate their new address through the Child Benefit Register.

Table 2.3 gives a breakdown of the 640 refusals and 156 'Other' families who did not participate in Wave 2, according to some characteristics recorded at Wave 1.

Table 2.3: Breakdown of refusals and 'Other' outcomes in Wave 2 by income quintile, family structure and mother's educational attainment in Wave 1

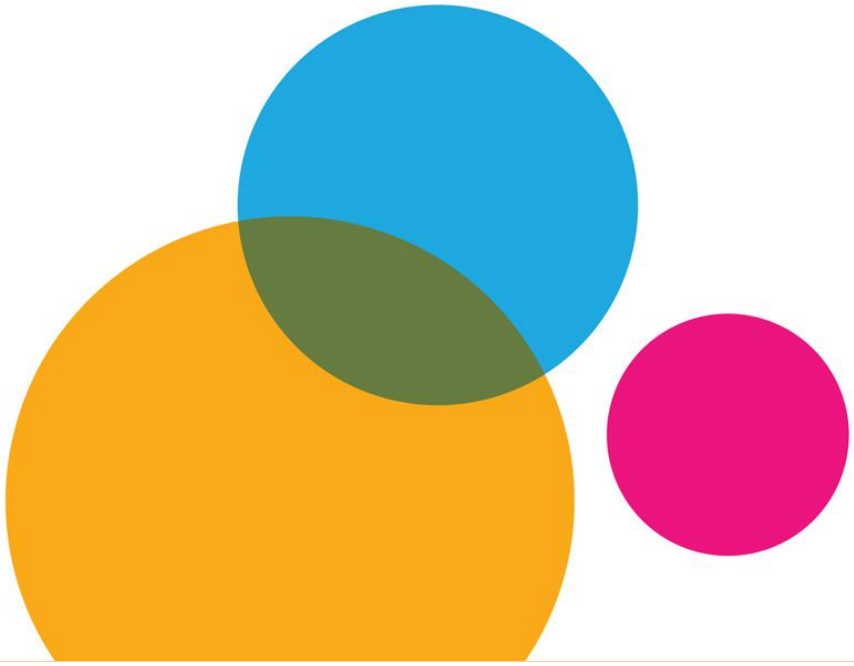
	Income Quintile at Wave 1						
Outcome at Wave 2	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Missing**	**Total**
Refused	27.7	19.7	17.5	14.2	16.7	7.4	100.0
'Other'	31.4	16.0	15.4	14.1	16.7	10.2	100.0
Completed	18.6	17.1	18.0	20.5	18.3	7.4	100.0

	Family Structure at Wave 1				
Outcome at Wave 2	**One parent, 1-2 children**	**One parent, 3+ child**	**Two parents, 1-2 children**	**Two parents, 3+ child**	**Total**
Refused	9.1	15.0	27.0	48.9	100.0
'Other'	8.3	10.3	41.0	40.4	100.0
Completed	4.9	6.2	33.0	56.0	100.0
	Mother's Education at Wave 1				
Outcome at Wave 2	**Lower Secondary**	**Leaving Cert.**	**Certificate/Diploma**	**Degree**	**Total**
Refused	20.0	40.0	15.6	24.4	100.0
'Other'	18.6	30.8	14.7	35.9	100.0
Completed	10.9	32.2	19.8	37.0	100.0

One can see from the table that families who were socially disadvantaged (measured in terms of income and maternal education) were over-represented among the 'Refusal' and 'Other' outcome categories in Wave 2; e.g. 11 per cent of families who had completed the survey in Wave 2 were in the 'Lower Secondary' educational category in terms of mother's education. This compares to 19-20 per cent of families in the 'Refusal' and 'Other' outcome groups. Similarly, one-parent families (characterised as having lower family income and maternal education) were over-represented among the two groups in question. The response from these two categories was expected to be low (possibly 15-20 per cent on the basis of the experience in the pilot experience). The families involved, however, had a higher than average likelihood of being disadvantaged and were therefore of particular interest from a policy perspective. It was therefore desirable to maximise the number of the families in question in the completed sample for analysis. The inclusion of both the 'Refusal' and 'Other' groups from Wave 2 would substantially reduce the overall response rate for the main phase at five years of age. The reweighting of the data for the main phase will adjust for differential attrition effects.

Chapter 3

THE PRIMARY CAREGIVER'S MAIN QUESTIONNAIRE



3. THE PRIMARY CAREGIVER'S MAIN QUESTIONNAIRE

3.1 INTRODUCTION

The main informants in the home were the Primary and Secondary Caregiver as well as the Study Child. This chapter considers the Primary Caregiver's main questionnaire and how it performed in the field, including timings of its various sections. A brief discussion of how each questionnaire performed in the home is then provided. Detail on whether or not information recorded at five years was recorded in the previous Wave at three years of age is also given here.

A copy of all of the questionnaires used in the pilot is enclosed in Appendix A. The discussion below has been written with a view to it being read in conjunction with the two appendices.

3.2 QUESTIONNAIRE TIMINGS IN THE HOME

Table 3.1 summarises the timings for each of the pilot questionnaires used in the home. The most important point to note is that the total visit to a two-parent family in which there was full compliance with all aspects of the study was just over three hours (184 minutes). This allowed 20 minutes for what is described in the table as 'engagement and disengagement' with the family. This involves discussing the project with the family at the outset, taking them through the Information Leaflet, and completing consent forms (five in total were used in this pilot). It also involves setting up the laptop, measuring stick and weighing scales, and taking the physical measurements, as well as thanking the family for their participation in the survey, and dealing with any comments or issues they may have had.

Table 3.1: Summary timings for each home-based questionnaire used in the pilot

	Average Minutes
Primary Caregiver Main Questionnaire	
Section A – Household composition	7.6
Section B – Child's sleep and relationships	9.3
Section C – Child's physical health and behaviour	21.1
Section D – Parental health	1.9
Section E – Child's play, activities and temperament	9.5
Section F – Child's functioning and relationships	5.3
Section G – School / Childcare / Preschool	18.5
Section H – Parenting and family context	8.5
Section J – Socio-demographics	9.5
Section K – About you (the respondent)	2.0
Section L – Neighbourhood	2.7
Total	**95.9**
Primary Caregiver Sensitive Questionnaire	**11.4**
Secondary Caregiver Main Questionnaire	**19.1**
Secondary Caregiver Sensitive Questionnaire	**12.3**
Pediatric Quality of Life Measure (PedsQL)	**5.7**
Cognitive tests – BAS (Picture Similarities and Naming Vocabulary)	**19.6**
Total above	**164.0**
Engagement and disengagement (information leaflet, consents, equipment, physical measurements)	20.0
Total Contact Time	**184.0**

The longest questionnaire was the Primary Caregiver (Main), at an average of 96 minutes. The sensitive questionnaires had an average of 12 minutes each. The cognitive tests each took approximately 10 minutes, with six minutes for the Pediatric Quality of Life Measure (PedsQL). These are average figures; although some visits to families took less than three hours, others took substantially longer. The interview was often split over more than one visit to the family's home. Length of time in the home is clearly important in all surveys. In a longitudinal survey where a return phase is envisaged it assumes even greater importance than usual.

3.3 THE PRIMARY CAREGIVER QUESTIONNAIRE

The longest instrument administered in the home was the Primary Caregiver Questionnaire (96 minutes). This contained 11 sections:

1. Section A – Household register
2. Section B – Child's habits and routines
3. Section C – Child's physical health and development
4. Section D – Parental health
5. Section E – Child's play and activities
6. Section F – Child's functioning and relationships
7. Section G – School / childcare / preschool
8. Section H – Parenting and family context
9. Section J – Socio-demographics
10. Section K – About you (the Primary Caregiver)
11. Section L – Neighbourhood

Each of the sections is considered briefly below. How the section performed in the pilot and notes any recommendations for change for the main phase at five years of age are presented. In the following chapters, how the various scales performed in the pilot is discussed in depth.

3.3.1 SECTION A: THE HOUSEHOLD REGISTER (PP.1-4 PRIMARY CAREGIVER QUESTIONNAIRE)

This section was forward-fed from the previous wave and recorded information on the household composition and changes therein since the previous interview at three years of age. It worked well and is very little changed from the version used in the second wave.

Recommendations for main phase at five years

- No change

3.3.2 SECTION B – CHILD'S HABITS AND ROUTINES

This section recorded details on:

Construct	Questions at age 5	Included at 3 years
SECTION B Child's habits and routines		
Time child sleeps and wakes	B1 - B3	✔
Child's sleeping patterns a problem for Primary Caregiver?	B4	✔
Comforting behaviours	B6	✔
Parent-child relationship (Pianta scale)	B7	✔
Discipline strategies	B8	✔

These questions appeared to work well; in general, there was good variance in the response categories. Prevalence of sleeping during the day was particularly low; 98 per cent of parents said the child did not take a sleep.

Recommendations for main phase at five years

- Removal of Question B2 on sleeping during the day since prevalence was so low and the question did not seem to be that applicable to this age group.

3.3.3 SECTION C – CHILD'S PHYSICAL HEALTH AND DEVELOPMENT

This section recorded details on:

Construct	Questions at age 5	Included at 3 years
Current health	C1	✔
Chronic, longstanding illnesses, conditions and diagnosis	C2 – C6	✔
Food allergies	C7 – C8	✔
Wheezing and asthma	C9 – C11	✔
Health care use	C12 – C17	✔
Antibiotic use	C18 – C19	✔
Nights spent in hospital	C20	✔
Accidents – no. and nature of most serious	C21 – C26	
Sight problems	C27	✔
Hearing problems	C28	✔
Constraints in accessing healthcare	C29 – C30	✔

Concerns re child's speech development	C31 – C33	✔
Dental care	C34 – C43	✔
Prescribed medicines – name of medicines (max of 6)	C44	
Child's dietary profile – inventory of food intake over last year	C45	✔
Parental feeding style	C46 – C49	✔
Primary Caregiver's perception of child's weight	C50	✔
Handedness	C51	
Social Skills Improvement System	C52	

Most of these questions were used in previous rounds for the Infant Cohort. They worked well in the pilot and were well differentiated in the response categories.

Recommendations for main phase at five years

- Removal of three items included in Chronic Illness questions: viz. constipation, soiling and 'Other'. These are not really chronic in nature and had low prevalence levels in the pilot.
- Change in reference for category of accident. In the pilot, information was recorded in respect of the 'most severe' accident experienced by the child. For the main phase it was recommended that details be recorded on the 'most recent' accident. This should give a random sample of accidents to five-year-olds. The questions on the nature of the accident, location, associated hospitalisation, etc. all worked well in the pilot.
- Removal of section on dental care. Although this section worked well, it was recommended that it be removed from the main phase as it was separable, and time savings needed to be effected.
- Removal of Question C44 on medicines currently being taken by the Study Child. Details were being recorded of specific medicines. Since much of the information recorded on medicines related to respiratory issues, and information on this was collected elsewhere in the questionnaire (concerning wheezing, asthma, inhalers), the marginal analytical traction provided by information on medicines appeared low.
- Removal of questions C47 to C48 on where and with whom the child eats his/her main meal of the day as there was limited analytical relevance for this age group.
- Removal of the parent's perception of the child becoming overweight in the future due to limited analytical (possibly even interpretational) relevance.
- The Social Skills Improvement System (SSIS) was cut from seven sub-scales to four (assertion, responsibility, empathy, self-control). This meant that three of the sub-scales were not included – communication, co-operation and engagement – which we believe were covered to an extent by other measures already in the study, such as the Strengths and Difficulties Questionnaire (SDQ) and the temperament scale. With this in

mind, plus the onerous length of the scale, the four scales above were maintained as a complement to these other measures.

3.3.4 SECTION D – PARENTAL HEALTH

This section recorded details on:

Construct	Questions	Included at 3 years
Section D: Parental Health		
Primary Caregiver current health	D1	✔
Primary Caregiver chronic, longstanding conditions	D2 – D5	✔
Family and child medical cover – none, full cover, or GP only	D6 – D8	✔
Other person in household with chronic illness affecting child	D9 – D10	
Physically active	D11	
Perception of own weight and dieting behaviours	D12 – D13	

The section worked well, with few issues arising.

Recommendations for main phase at five years

- No changes

3.3.5 SECTION E – CHILD'S PLAY AND ACTIVITIES

This section recorded details on:

Construct	Questions	Included at 3 years
Section E: Child's play, activities and temperament		
Child's temperament as used in Longitudinal Study of Australian Children (LSAC) (adapted Short Temperament Scale for Children / STSC)	E1 – E2	✔
Activities with the child	E3a	✔
Child activities	E3b, E9	✔
Activities with family	E4	✔
Bayer et al child activities	E5 – E7	
Child attends sports club	E8	
Access to children's books in the home	E9	✔
TV, video, computer games, Internet usage and supervision	E11 – E21	✔

Section E11–E21 was found to be repetitive for many respondents. The questions recorded details on time spent on a weekday and at the weekend watching TV, videos, etc, and also on uses of a computer (in its many forms), followed by electronic games systems such as Nintendo, Gameboy, etc.

Recommendations for main phase at five years

- Removal of questions E5 and E6 on 'spending time outside' with the Study Child and swimming with the child, but retention of 'swimming' as a category in Question E4. The response codes for the above two questions posed recurring difficulties for respondents. The interpretation and meaning of 'spending time outside' with the child was extremely variable.
- Collapsing and redefining E11-E19 to record details on 'screen time' on a typical day (as the important analytical construct), along with a very brief breakdown of the nature of that time (how the child's screen time is broken down in terms of educational games, other games, movies, videos/DVDs, etc).

3.3.6 SECTION F – CHILD'S FUNCTIONING AND RELATIONSHIPS

This section recorded details on:

Construct	Questions	Included at 3 years
Section F: Child's functioning and relationships		
Strengths and Difficulties Questionnaire (SDQ)	F1	✔
Parent perception of difficulties and their impact	F2 – F6	
Sibling relationships	F7 – F8	✔
Pediatric Quality of Life Measure (PedsQL)	F9-F10i	

This section contained the Strengths and Difficulties Questionnaire (SDQ), including the impact sub-scale (not previously used with this cohort). It also included the Pediatric Quality of Life Measure (PedsQL) as a measure of the child's development or, specifically, developmental problems.

The SDQ worked well and further details on it are included in Chapter 8.

The PedsQL was not particularly well understood or received by respondents; a large proportion felt it to be repetitive of many of the issues previously raised in the health section on developmental delays.

Recommendations for main phase at five years

- In view of the relatively negative response from respondents and the limited additional information provided by the scale, it was recommended that the Pediatric Quality of Life Measure (PedsQL) be removed for the main phase of the study.

3.3.7 SECTION G – SCHOOL / CHILDCARE / PRESCHOOL

This long section recorded information on preschool and early school experience. ***Growing Up in Ireland*** is based on an age cohort rather than a cohort entering school; five-year-olds are likely to be in different settings and to have different experiences of early childhood care and education. At the time of piloting, some had not started primary school (the Study Team estimated approximately 40 per cent), while others were in Junior Infants and some in Senior Infants. The questionnaire allowed for these different scenarios by tailoring questions to the three groups (viz. children not yet started school; those in Junior Infants, and those in Senior Infants). In addition, some children had experienced preschool, possibly under the Free Preschool Year or other scheme, while some had not;[4] others were in various non-parental care settings, including crèche. The transition to school is obviously a most important developmental stage for the children; because of this, as well as the different experiences of childcare and school and preschool education, this section was quite long, albeit routed depending on the child's level and stage.

Despite the routing, the reaction from respondents was that the section was very repetitive. One aspect that precipitated a negative reaction was the attempt to record details on *preschool* readiness (where relevant) as well as *school* readiness. Throughout fieldwork, and in the debriefing, the interviewers commented on the validity of recording details on preschool readiness for those children who had already started primary school.

The section on the Free Preschool Year indicated 95 per cent take-up. Those who did not avail of the scheme did not do so principally as a result of prior links with childcare and preschool in relation to older siblings, and an unwillingness to change from arrangements put in place for the older children in the family. This section provided details on the percentage of families who felt they would not have been able to avail of preschool without the support of the scheme.

The questions on school readiness (e.g. G12) worked well, as did the recording of the name of the primary school that the child was attending.

The overall structure of the section was as shown below. By definition, the only overlap in this section with questions asked in the previous round was in the area of childcare.

[4] The pilot data in fact indicated that approximately 95 per cent of five-year-olds had availed of the Free Preschool Year.

Construct	Questions	Included at 3 years
SECTION G School and childcare		
Section G1 – Children who have started school		
Sub-section 1 – School details, school choice and transition to school		
Date of starting school	G2	
Name / address of school	G3	
Single sex / co-ed	G4	
Class / stage	G5	
Changes in school since started and reasons	G6	
Enrolment – background, advice, influencing factors	G7 – G10	
Preparing child for school	G11	
Parent perception of school readiness	G12	
Parental engagement with teacher and knowledge about learning activities	G13 – G14, G18	
Child's adjustment to school	G15 – G17, G19	
Who minds child if too sick to attend school	G20	
Subsection 2 – Term time out of school care for those who have started school		
Nature, quantity, cost of current after-school childcare	G21 – G26	✔
Reason for current childcare	G27	
Emlen Scales: rich environment and activities – quality of childcare	G27 – G29	
Financial strain of childcare	G30	
Satisfaction with current childcare	G31	
Sub-section 3 – Attendance at preschool prior to starting school		
Use of Free Preschool Year, if not why not, and ability to use preschool if not for the scheme	G32	✔
Type of centre-based care	G33	✔
Age of child on starting and finishing this type of preschool	G34	
Hours per day spent in preschool (cost of extra hours if relevant)	G35	✔
Parent perception of child's readiness for centre-based care	G36	
Child's reaction to attending this preschool	G37 – G38	
Parental knowledge about child's learning activities	G39	
Parental satisfaction with preschool	G40	

Emlen Scales: rich environment and activities – quality of childcare	G41	
Who minded child if too sick to attend preschool	G42	
Use of Community Childcare Subvention (CCS), if not why not, and ability to use preschool if not for the scheme	G43	
Use of the Childcare Employment and Training Support Scheme (CETS), if not why not, and ability to use preschool if not for the scheme	G44	
Use of the Early Start Programme (ESP), if not why not, and ability to use preschool if not for the scheme	G45	
Section G2 – Children who have NOT started school		
Sub-section 1 – Reasons for not starting school and preparing for school		
Reasons for not having started school	G46	
Name / address of school child will attend	G47 – G48	
Date child will start school	G49	
When registered	G50	✔
Enrolment – background, advice, influencing factors	G51 – G52	
Preparing child for school	G53	
Parent perception of school readiness	G54	
Sub-section2 – Attendance at preschool for child who is NOT at school		
Use of Free Preschool Year, if not why not, and ability to use preschool if not for the scheme	G55	
Type of centre-based care	G56	✔
Age of child on starting and finishing this type of preschool	G57	✔
Hours per day spent in preschool (cost of extra hours if relevant)	G58	✔
Parent perception of child's readiness for centre-based care	G59	
Child's reaction to attending this preschool	G60 – G61	
Parental knowledge about child's learning activities	G62	
Parent s satisfaction with preschool	G63	
Emlen Scales: rich environment and activities – quality of childcare	G64	
Use of Community Childcare Subvention (CCS) programme, and ability to use preschool if not for the scheme	G65	
Use of the Childcare Employment and Training Support Scheme (CETS), and ability to use preschool if not for the scheme	G66	

Use of the Early Start Programme (ESP), and ability to use preschool if not for the scheme	G67	
Subsection 3 – Additional care arrangements for those attending preschool and alternative care arrangements for those not attending preschool		
Nature and quantity of additional after-school childcare (>8 hours/ week), cost, and age of child when started	G68 – G72	✔
Number of children looked after in main form of childcare; number of adults supervising the children	G73	✔
Reason for current childcare	G74	
Emlen Scales: rich environment and activities – quality of childcare	G75 – G76	
Financial strain of childcare	G77	
Satisfaction with current childcare	G78	
Section G3 – Children not at school and not in childcare		
For non-attendees of any regular childcare		
Main reason child does not have regular childcare arrangements at present	G79	

Recommendations for main phase at five years

- Removal of questions on whether or not the child has changed primary school since s/he started mainstream education. Only one child was recorded as having changed school.
- Removal of item relating to consultation on school choice with the National Parents Council before school began, in questions such as G9 and G51. No respondents indicated this as an element in their decision-making process. Rather, the question on whom the parent sought advice from before enrolling the child for school seemed to work well, with respondents using a mix of formal and informal sources. Those with lower levels of education appear to use more informal sources (family, friends).
- Minor modification to Question G10 on factors influencing school choice. G10 worked well, with variation in the factors for school choice. There was less variation in item (d) ('general good impression of the school'), but it was important to keep some measure of overall impression. A significant number of respondents (28) mentioned a gaelscoil (instruction through Irish). This was incorporated explicitly into a new item on the language of instruction used in the school.
- Removal of item (c) in questions such as G11 and G53 (relating to seeking or receiving advice on getting the child ready for school). This was an ill-defined item that was difficult to interpret for both respondent and analyst.

- Removal of G14 on dropping child off to school each day. The more important issue was the frequency with which parent(s) spoke to the child's teacher (recorded at Question G13).
- Adjustment to school (Question G15) indicated that around 10-15 per cent of children were emerging as having possible problems in adjusting to school. The adjustment items vary by maternal education and when the child started school. It was recommended to keep G15 but remove G16 (what upset the child or made him/her reluctant to attend school) as the question was felt to be somewhat leading, and of limited analytical use.
- Addition of childminder to response categories in questions on who minded the child when s/he was sick and too ill to attend school (e.g. G20, G42). This was a recurring response which was not in the precoded response set but was spontaneously recorded in the 'Other' category.
- Removal of G27 on reason for childcare. There was little variation – mostly due to parents' work commitments – and it would offer very little analytic traction over and above principal economic status.
- Some of the items in G28 relating to quality of childcare were omitted as they were largely redundant on the basis of the frequency with which they were selected by respondents. This is an important question that, overall, scales well. The selection of final items was based on the reliability of sub-sets of items in the question. A sub-scale for learning-related activities (the first five items, a to e, inclusive) has a reliability of 0.942 and so it was recommended that they be included in the main phase, along with an item on the level of attention received by the child and one on whether or not the child likes the caregiver.
- Removal of G31 on satisfaction with childcare. There was very little variance in the responses to this question and it was highly correlated with the scales on childcare quality. Retaining the sub-scale suggested above in relation to G28 was more important. Families generally stayed with a given childcare arrangement only if they were satisfied with it.
- Removal of questions such as G36-G38 and G59 on preschool readiness and adjustment to preschool. Attempting to differentiate and record details on readiness and adjustment to preschool (mostly *in addition* to readiness and adjustment to primary school) placed too much burden on the respondent and took up a lot of time in the home. In any case, it was also quite highly correlated with the school readiness scale.
- Removal of Question G40 and G63 on satisfaction with the child's preschool. There was very little variation in the responses to these questions, and therefore it was of little analytical value.
- Removal of questions on Community Childcare Subvention (CCS) programme, Childcare Employment and Training Support Scheme (CETS), and Early Start Programme (ESP). Profile and knowledge among respondents was quite low.

- Removal of question on satisfaction of childcare for children not yet attending primary school. There was little variation in the responses and therefore little to offer in analytical terms.

3.3.8 SECTION H – PARENTING AND FAMILY CONTEXT

This section included scales on parenting style (based on the Longitudinal Study of Australian Children parenting measure); parental work-life balance and support; child-oriented deprivation and parental social support items, as follows:

Construct	Questions	Included at 3 years
SECTION H		
Parenting and family context		
Eating together as a family	H1	✔
Parenting style	H2 – H3	✔
Work-life balance	H4	✔
Support from family or friends outside home	H5	✔
Grandparents – contact and support	H6 – H9	✔
EU Survey on Income and Living Conditions (SILC) child deprivation indicators	H10	✔
Family services needed in the last year, and use/access if relevant	H11	
Adverse life events	H12	

Recommendations for main phase at five years

- Removal of parental social support items at H11. Although this was felt to be an important issue, it was very demanding of the respondent and time-consuming.

3.3.9 SECTION J – SOCIODEMOGRAPHICS

This section records details on the basic sociodemographic classificatory variables used for analysis. Information recorded in the section included the following:

Construct	Questions	Included at 3 years
SECTION J		
Sociodemographics / Classificatory		
Nature of accommodation	J1 – J3	✔
Nature of tenure	J4	✔

Suitability of accommodation for family	J5 – J6	✔
Principal economic status / family social class / nature of occupation & employment	J7 - J28	✔
Family income	J29 – J33	✔
Social welfare payments	J34 – P39	✔
Family 'basic' deprivation indicators, incl. perceived impact of recession	J40 – J48	✔

This was a minimum set of questions required to measure this construct and worked well in previous rounds of the project. The distributions from the pilot were in line with expectations

Recommendations for main phase at five years

- Continue to use this section as included in the pilot phase.

3.3.10 SECTION K – ABOUT THE PRIMARY CAREGIVER

This section recorded details about the Primary Caregiver such as educational attainment, languages spoken in the home, religious denomination, citizenship and so on. Information on numeracy and literacy was forward-fed and therefore was only asked of new respondents.

Construct	Questions	Included at 3 years
SECTION K		
Characteristics of Primary Caregiver and home environment		
Primary Caregiver education	K1 - K2	✔
Child's first language and main language used in the home	K3a – K3b	✔
Primary Caregiver's competence in English	K4 – K6	✔
Primary Caregiver's numeracy	K7	✔
Primary Caregiver's religious denomination	K8 – K9	✔
Primary Caregiver citizenship and country of birth	K10 – K14	✔
Primary Caregiver's ethnicity	K15	✔

This set of questions was used in previous rounds for the Infant Cohort. Distributions in the current pilot were in line with expectations.

Recommendations for main phase at five years

- Continue to use this section as included in the pilot phase, with the removal of Question K2 on the age at which the Primary Caregiver left full-time education for the

first time. This information was recorded in earlier rounds of the cohort and would not change over time.

3.3.11 SECTION L – NEIGHBOURHOOD

This section recorded details on connectedness with and sense of attachment to neighbourhood so as to measure the social ecology and structure of neighbourhood, with a view to assessing how they affect child outcomes.

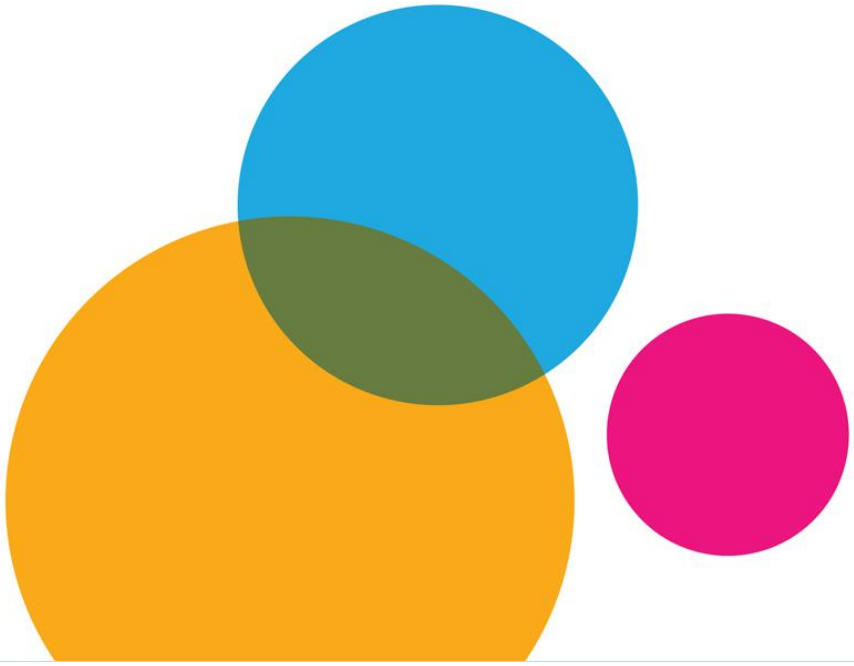
Construct	Questions	Included at 3 years
SECTION L		
Neighbourhood/Community		
Length of time living in area	L1	✔
Perceived safety and quality of local neighbourhood	L2, L5, L7	✔
Community participation	L3	
Problems with accommodation	L4	✔
Neighbourliness	L6	

Recommendations for main phase at five years

- Continue to use this section in the format included in the pilot phase, with the addition of a question on size of the area in which the family is living. This has been extensively used in analysis to date on both cohorts.

Chapter 4

THE SECONDARY CAREGIVER'S MAIN QUESTIONNAIRE



4. THE SECONDARY CAREGIVER'S MAIN QUESTIONNAIRE

As in previous waves, the Secondary Caregiver Questionnaire contained a sub-set of sections / questions from the Primary Caregiver instrument. Its overall structure was as follows:

Construct	Questions	Included at 3 years
Parent-child relationship (Pianta scale)	B7	✔
Discipline strategies	B8	✔
Primary Caregiver's perception of child's weight	C50	✔
Primary Caregiver's current health	D1	✔
Primary Caregiver chronic, longstanding conditions	D2 – D5	✔
Family and child medical cover – none, full cover, or GP only	D6 – D8	✔
Other person in household having chronic illness affecting child	D9 – D10	✔
Physically active	D11	✔
Perception of own weight and dieting behaviours	D12 – D13	✔
Child's temperament as used in Longitudinal Study of Australian Children (adapted Short Temperament Scale for Children (STSC))	E1 – E2	
Activities with the child	E3a	✔
Parenting style	H2 – H3	
Work-life balance	H4	✔
Support from family or friends outside home	H5	
Principal economic status / family social class / nature of occupation & employment	J7 – J27	✔
Primary Caregiver education	K1 – K2	✔
Child's first language and main language used in the home	K3a – K3b	✔
Primary Caregiver's competence in English	K4 – K6	✔
Primary Caregiver's numeracy	K7	✔
Primary Caregiver's religious denomination	K8 – K9	✔
Primary Caregiver citizenship and country of birth	K10 – K14	✔
Primary Caregiver's ethnicity	K15	✔
Participation in community	L3	✔
Secondary Caregiver's perception of neighbourhood as a place to raise children	L7	✔

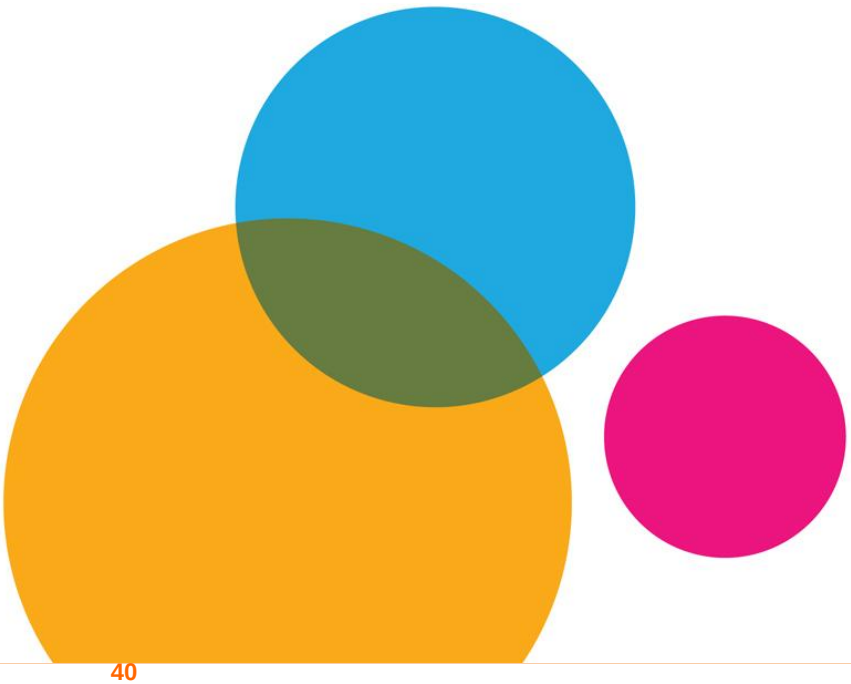
All elements on the Secondary Caregiver's Questionnaire performed well. Given that it contained a sub-set of the items included in the Primary Caregiver's Questionnaire, all comments made above in relation to that instrument also apply here.

Recommendations for main phase at five years

- The parenting style (H3) measure (based on the Longitudinal Study of Australian Children questions) was new to the Secondary Caregiver Questionnaire in this round of the project. As discussed in the case of the Primary Caregiver Questionnaire (in Chapter 3), these questions worked well. It was also seen as important to record this information on parenting style from both Primary and Secondary Caregivers and so it was recommended that they be maintained in the main phase of fieldwork when the children were 5 years of age.
- Removal of Question H11 on parental services required and received in the last year, as per the Primary Caregiver questionnaire.
- Removal of Question K2 on age at which the respondent left full-time education for the first time.

Chapter 5

THE SENSITIVE AND NON-RESIDENT PARENT QUESTIONNAIRES



5. THE SENSITIVE AND NON-RESIDENT PARENT QUESTIONNAIRES

5.1 SENSITIVE QUESTIONNAIRES

As in previous waves of the study, the Sensitive Questionnaires for Primary and Secondary Caregivers was administered on a self-completion CASI (computer-assisted self-complete interview) basis. The interviewer went through some initial sample questions with the respondent on the laptop and then turned it to the respondent for self-completion.

The same questionnaire was used for both Primary and Secondary Caregivers. The overall structure of the Sensitive Questionnaires (Primary and Secondary) is as summarised below:

Construct	Questions	Included at 3-years
Details on persons who have left family since Wave 1	AS1 – AS3	✔
Relationship to Study Child – biological, adoptive, foster	S1 – S11	✔
Marital status	S12 – S16	✔
Quality of marital relationship	S17 – S20	✔
Parental stress	S21	
Parental efficacy	S22	✔
Currently pregnant?	S23	✔
Current alcohol consumption	S24 – S26e	✔
Current smoking	S27 – S29	✔
Current drug taking	S30	✔
Depression & anxiety	S31 – S33	✔
Contact with An Garda Síochána	S34 – S35	✔
Sharing of family chores	S36	✔
Sharing of childrearing tasks	S37	✔
Only where there is a non-resident parent		
Nature of previous relationship with child's non-resident parent	S38 – S40	✔
Custody arrangements	S41 – S44	✔
Non-resident parent's (NRP) contact with Study Child	S45 – S47	✔
Child's adjustment on moving from one parent to another	S48 – S49	
Maintenance arrangements	S50	✔
Current relationship with NRP	S51 – S53, S56	✔
Involvement of NRP in childrearing	S54 – S55	
Other children living with NRP	S57 – S58	

The Sensitive Questionnaire was largely unchanged from the second round of the project. It worked well in the pilot and frequency distributions were in line with expectations.

A few items and scales were included in the Sensitive Questionnaire for the first time in the pilot with the five-year-olds. One of these was a 17-item parental self-efficacy scale:

Parenting Sense of Competence scale (PSOC). This performed well and is discussed in more detail in Chapter 8. Despite the performance of the scale, however, the single item on self-efficacy also performed well and was highly correlated with the 17-item scale ($r = 0.44$; $p < 0.01$). On this basis it was recommended that the scale be removed from the questionnaire in favour of the single-item question.

Further additions to the Sensitive Questionnaire in the pilot included more detail than in previous rounds of information in respect of non-resident parents, as well as more detail on sharing of household chores. These new items performed well.

Recommendations for main phase at five years

- Removal of the parental self-efficacy scale from the sensitive instrument in favour of the existing item on self-efficacy. This is discussed in further detail in Chapter 7.

5.2 NON-RESIDENT PARENTS

Nine non-resident parents were identified in the course of the pilot work. Contact details were provided by the Primary Caregiver in respect of five of them. A copy of the non-resident parent questionnaire was sent to three of them in the post and only one interview was successfully completed. However, given the small sample in the pilot it was recommended that this aspect of the study continue.

Chapter 6

CHILD MEASURES – COGNITIVE DEVELOPME AND PAEDIATRIC QUALITY OF LI

6. CHILD MEASURES – COGNITIVE DEVELOPMENT AND PAEDIATRIC QUALITY OF LIFE

6.1 THE COGNITIVE TESTS

6.1.1 INTRODUCTION

Children's cognitive ability in early life has been shown to be a good indicator of later educational development (Feinstein, 2003). Although the evidence emerging from family, twin and adoption studies would seem to suggest that cognitive ability is one of the most heritable of traits (Plomin, DeFries, McClearn & Rutter, 1997), longitudinal studies such as ***Growing Up in Ireland*** provide an opportunity to explore how cognitive abilities develop over time and how they interact with other environmental factors to influence children's opportunities and outcomes over the life-course.

6.1.2 CONSIDERATIONS IN SELECTING A MEASURE OF COGNITIVE ABILITY

Although there are a number of instruments for measuring cognitive ability in children (see Lichtenberg, 2005 for a review), the challenge faced by the Study Team when the child was three years old was to find an instrument that possessed strong measurement properties and could be adapted for use in a large social research survey such as ***Growing Up in Ireland***. The British Ability Scales (BAS) was selected at that time as the preferred instrument as it has a number of features that were considered desirable (Elliott et al., 1996, 1997). For a detailed description of the development and structure of these instruments, see the report *Design, Instrumentation and Procedures for the Infant Cohort at Wave Two (3 years)*.

6.2 THE BRITISH ABILITIES SCALES (BAS) AND *GROWING UP IN IRELAND*

6.2.1 BAS MEASURES SELECTED FOR INCLUSION IN GROWING UP IN IRELAND

Given the time constraints under which the Study Team was operating (90 minutes' contact time in the home), it was not feasible to administer the full Early Years Battery. As was the case at three years, two of the core scales (Naming Vocabulary and Picture Similarities) were used to derive measures of children's verbal and non-verbal ability – suitable for children aged 2:6 years to 5:11 years of age. The Naming Vocabulary test consists of 36 items ordered in terms of increasing difficulty and children are required to name the item displayed in a picture book. The Picture Similarities test comprises 33 items. Children are given a picture card and are required to choose, from four alternatives, the element or concept which they share in common (e.g. they are both cuddly toys, they both fly, etc).

6.2.2 ADAPTATIONS TO THE BAS FOR THE PILOT STUDY

In both cases the interviewer input the child's responses in the laptop. The pilot study established the feasibility of general-purpose interviewers administering the cognitive tests, largely with the assistance of a CAPI (computer-assisted personal interview) program that was developed to determine the questions which would be presented to the child based on

their earlier responses. This method reduced the burden of monitoring the complex decision rules determining which items should be presented to the child based on their pattern of correct or incorrect responding. The CAPI program also helped to standardise the administration of tests in terms of prompting the interviewer when teaching was required and when they should query an answer.

6.3 RESULTS FROM THE PILOT STUDY

6.3.1 SCORING SYSTEM

In general, the children seemed to enjoy doing the tests, and feedback from the interviewers was very positive on this aspect of the interview.

In the Naming Vocabulary Test, the interviewer presented all items up to a *Decision Point (item 30)*, beyond which children only proceeded if they had fewer than three failures on all items administered to that point. However, the scale also has an *Alternative Stopping Point* whereby the interviewer halts if the child gets five consecutive items incorrect, provided at least three items have been passed on the scale, or else goes back to the previous starting point. (See Elliott et al., 1996, 1997 for details).

In the Picture Similarities test, for the current age group the child was presented with all items from *item 11* through to *item 33* (the last item). However, if the child had fewer than three passes on the items, they were asked to go back to the previous starting point, in this case *item 1*. The *Alternative Stopping Point* was after any six incorrect items within the last eight administered items, provided at least three items have been passed on the scale, otherwise the interviewer goes back to the previous starting point.

6.3.2 NAMING VOCABULARY

The analysis outlined in this section is based on a total of 153 children who attempted the British Ability Scales (BAS) Naming Vocabulary test.[5] Table 6.1 below provides summary statistics for the raw score, ability score, t-score and percentile score for these children. The raw score represents the total number of correct items. This raw score was then converted to an ability score, which is the basis for the conversion to the other standard scores (using tables provided in the BAS manual).

[5] A small number of additional cases (6) have been completed since the analysis was undertaken. These do not change the results. The reader should also note that these results are based on a larger sample than the 124 in the norming sub-sample used by the test developers for this age group, as mentioned above.

Table 6.1: Summary statistics for Naming Vocabulary

	Total raw score for naming vocabulary	Total ability score for naming vocabulary	t score for naming vocabulary	Percentile on naming vocabulary
Mean	15.27	111.59	54.11	61.30
N	153	153	153	153
Missing	1	1	1	1
Std. deviation	3.58	16.84	12.14	30.64

Analysis of the frequency tables for the raw and standard scores (including age equivalents) highlighted a small cluster of children getting a raw score of 19; this was because no more items were administered past item 30 if the child had already got three wrong items at this stage. A high proportion of the children (57 per cent) also fell into an age equivalent band that was higher than their actual age; over 28 per cent fell into the *eight years or more* band. These ceiling effects may in part be due to the small standardisation sample used by the test developers.

6.3.3 PICTURE SIMILARITIES

The table below summarises the statistics for the raw scores and ability scores for the 154 children who completed the Picture Similarities test, as well as the standard scores and age equivalents.

Table 6.2: Summary statistics for Picture Similarities

	Total raw score for picture similarities	Total ability score for picture similarities	t score for similarities	Percentile on picture similarities
Mean	17.31	87.54	57.38	68.10
N	154	154	154	154
Missing	0	0	0	0
Std. deviation	2.82	10.77	10.34	24.60

There was only one decision point for the Picture Similarities; this was at item 33, which also happened to be the last item on this test. As a consequence, scores for the current group looked relatively high. As for the Naming Vocabulary test, we found relatively high numbers of children with an age equivalent higher than their actual age; over 22 per cent fell into the *8 years or more* band. Again, the small standardisation sample used by the authors may account for this.

Correlation between the Naming Vocabulary and Picture Similarities was 0.30, indicating that the measures tap into different abilities.

6.3.4 CORRELATIONS WITH OTHER MEASURES

Scores on the British Ability Scales (BAS) were associated with other conceptually meaningful measures from the pilot survey, in order to explore its validity. One such measure was maternal education; indeed, higher *maternal education* was significantly associated with higher ability scores on the Naming Vocabulary test ($F = 7.71$, $p<0.01$), with mean ability scores of 115.3, 111.1, and 95.4 for mothers educated to degree level, upper secondary level, and lower secondary levels respectively. A similar pattern was found for ability scores on the Picture Similarities test ($F = 3.15$; $p<0.05$), with mean ability scores of 89.6, 86.7, and 81.8 for degree, upper secondary, and lower secondary levels of education.

Scores on the BAS Naming Vocabulary were also associated with the main language spoken to the child in the home. Speaking English as the main language with the child at home was significantly associated with higher scores on the Naming Vocabulary scale ($F = 48.74$, $p<0.001$), with mean ability scores of 114.1 for children in households where English was the first language (n=140) compared to others where it was not (84.4; n=13), although numbers in the latter group were small. Children in households where English was the first language were also more likely to score higher on the Picture Similarities test (88.0 compared to 82.3), although this was not a significant difference. The findings were not surprising, perhaps, given that the current sample of children had not been in school very long and therefore the main language spoken in the home was likely to have a larger impact on their language skills.

Finally, the association between gender and cognitive ability was checked. In terms of scores on both the Naming Vocabulary and Picture Similarities tests, girls in the pilot study did better than boys. For the Naming Vocabulary, mean scores were 115.0 for girls and 107.2 for boys ($F = 8.42$; $p<0.005$). In the Picture Similarities test, girls had a mean score of 89.4 while boys had a mean score of 85.2 ($F = 5.87$; $p<0.05$).

These findings reflect those from other longitudinal studies, namely Growing Up in Scotland (GUS) and the Millennium Cohort Study (MCS), which both used the Naming Vocabulary and Picture Similarities at ages three and five. For example, the MCS found that children from families where only a non-English language was spoken were behind on naming vocabulary. Children with parents who had no qualifications were behind the MCS average on picture similarities and on naming vocabulary (see Hansen & Joshi, 2008), a finding similar to that found in GUS (see Bradshaw, 2011).

From a longitudinal perspective, the two BAS scales used in the pilot study (at five years) and in the main study at age three showed some stability over time (though lower than expected): Naming Vocabulary ($r = 0.54$; $p<0.01$); Picture Similarities ($r = 0.37$, $p<0.01$).

Recommendations for main phase at five years

- There are major benefits in maintaining this measure in the study to ensure longitudinal continuity from the second wave of ***Growing Up in Ireland***, for comparability with other studies such as the Growing Up in Scotland (GUS) and Millennium Cohort Study (MCS),

and because the measure of cognitive ability is an important focus for the study. While it is recognised that the children in the pilot sample appear to be doing particularly well, it was also felt that the results above confirm the usefulness of the measure in terms of social gradients and structuring of the data. It is anticipated that, once the data are collected on such a large sample as that in ***Growing Up in Ireland***, this issue will become largely redundant and that the data will be used to situate the child in the overall distribution, say on a percentile or decile basis.

6.4 PAEDIATRIC QUALITY OF LIFE

6.4.1 PEDIATRIC QUALITY OF LIFE MEASURE (PEDSQL)

The PedsQL Measurement Model is a modular approach to measuring health-related quality of life (HRQOL) in healthy children and adolescents and those with acute and chronic health conditions (Varni et al., 1999). The PedsQL Questionnaire, used in the pilot, contains 23 core questions that address the physical and psychosocial aspects of health. With respect to the psychosocial aspect of health, the questionnaire examines social, emotional and school functioning. For each aspect of health, survey participants are asked to rate how much of a problem five to eight 'items' have been over the last few weeks. The questionnaire varies slightly among four age groups to ensure that items asked are developmentally appropriate. The questionnaire is administered to children aged 5 to 7, children aged 8 to 12, and adolescents aged 13 to 18. For very young children (ages five to seven years), the numerical response scale is replaced with a scale of smiley faces. Parents are asked to assist young children in completing the questionnaire by having the child assign a smiley face.

Prior research on the PedsQL has demonstrated a consistent difference in health status scores between healthy children and children with chronic health conditions such as asthma, arthritis, cancer and diabetes. Healthy children have been shown to have significantly higher scores than children with clinically diagnosed chronic conditions (Varni, Seid & Kurtin, 2001).

6.4.2 RELIABILITY AND VALIDITY

Reliability reported by the authors is 0.88 on the Total Scale Score of the child self-report measure. The authors also report that the measure distinguishes between healthy children and children with acute and chronic health conditions, and distinguishes disease severity within a chronic health condition.

6.4.3 PERFORMANCE IN THE PILOT STUDY

Many of the interviewers commented that they felt that some of the concepts in the PedsQL were not well understood by the children, and that when they had picked one answer category they often tended to stick to it.

Analysis of the ***Growing Up in Ireland*** pilot data indicated only low to moderate levels of internal reliability consistency for the different sub-scales (physical functioning: $\alpha = 0.45$; emotional functioning: $\alpha = 0.46$; social functioning: $\alpha = 0.65$; school functioning: $\alpha = 0.62$),

but this was somewhat better for the overall measure (α = 0.79) and overall psychosocial functioning (emotional, social, and school functioning) (α = 0.76).

The PedsQL was cross-referenced against other measures with theoretical links to physical and psychosocial functioning. This helped to establish whether or not there was convergent validity for this measure. Using analysis of variance, parental report of chronic illness ('Does <child> have any longstanding illness, condition or disability?') was checked. It did not correlate significantly with the child report of paediatric quality of life. There was no significant difference on any of the physical or psychosocial summary scores, nor was there any difference between having a chronic illness or not, and total measure on the PedsQL. It should be noted that only 17 children were recorded as having a chronic condition in the current pilot. Of these 17 children, four were reported as being hampered in their daily activities by their condition, and PedsQL scores would suggest that there were differences in functioning for these children. However, the numbers were simply too low to confirm this finding. We also looked at another health-related question: 'In general, how would you describe the child's current health' ('Very healthy/no problems' vs. all other response categories), and found that although those who were healthy with no problems had higher functioning on all measures except emotional functioning, none of these was statistically significant.

In a further attempt to ascertain validity for the measure, scores on the Strengths and Difficulties Questionnaire (SDQ) were correlated against the sub-scales of the PedsQL. There were no significant correlations, but it was particularly notable that the psychosocial sub-scale on the PedsQL did not correlate significantly with either the emotional sub-scale of the SDQ, or the peer or prosocial sub-scales. It did however have a weak correlation with the SDQ conduct sub-scale ($r = -0.19$; $p<0.05$).

Recommendations for main phase at five years

- With regard to the results arising from the pilot, the PedsQL did not add much to information already collected elsewhere. It was also felt that some of the concepts were not understood by the children. The recommendation, therefore, was to drop this measure for the main study in favour of existing questions.

Chapter 7

OTHER SCALES USED IN THE STUDY

7. OTHER SCALES USED IN THE STUDY

7.1 STRENGTHS AND DIFFICULTIES QUESTIONNAIRE

7.1.1 INSTRUMENT DESCRIPTION

The Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) is a 25-item measure of prosocial behaviour and psychopathology of 3-16-year-olds that can be completed by parents, teachers or youths. The instrument is described in detail in the *Design, Instrumentation and Procedures for the Infant Cohort at Wave Two (3 years)*.

The impact scale of the SDQ was introduced in the five-year pilot. It was not included in any previous wave of ***Growing Up in Ireland***, with either cohort. It was used to ascertain the parent's perception of the impact of any potential difficulties on the child.

7.1.2 PERFORMANCE IN THE PILOT STUDY

In terms of internal consistency reliability, findings were mixed for the sub-scales in the current pilot study. For example, alphas were moderate to high for the hyperactivity sub-scale (α = 0.77) and prosocial behaviour (α = 0.71), but lower for emotional symptoms (α = 0.57), conduct (α = 0.57) and peer problems (α = 0.55). Previous investigators have also reported mixed reliabilities for the SDQ sub-scales (see for example, Goodman 2001; Van Roy et al, 2008). The alpha for the Total Difficulties scale was acceptable at 0.59.

Table 7.1: Summary statistics for the Strengths and Difficulties Questionnaire (SDQ) sub-scales and total score

		SDQemot_5	SDQcond_5	SDQhyper_5	SDQpeer_5	SDQpro_5	SDQtot_5
N	Valid	154	154	154	154	154	154
	Missing	0	0	0	0	0	0
Mean		1.318	1.136	2.779	.805	8.467	6.039
Median		1.000	1.000	2.000	.00	9.000	5.000
Minimum		.00	.00	.00	.00	.00	.00
Maximum		8.00	7.00	10.00	6.00	10.00	22.00

Overall, the scores on the Total Difficulties score were relatively low for the pilot group (maximum score of 22 out of 40), with a mean score of 6.0, although this was probably not surprising for this age group.

Using the 90th percentile to define children with an 'abnormal' profile on the Strengths and Difficulties Questionnaire (SDQ), it was noted that children who fell into this category were more likely to be rated as less close to their Primary Caregiver ($F = 9.83$; $p<0.01$) and more conflicted with them ($F = 28.91$; $p<0.01$), as measured by the Pianta Child-Parent Relationship Scale (CPRS) (discussed in the next section). Parents of these children were also

likely to rate them as being less ready for school (F = 6.02; p<0.05). (School readiness will also be discussed later in this chapter.)

Children from lower socioeconomic backgrounds (indexed using maternal education) were also more likely to fall into the 'abnormal' group, which is consistent with findings in the literature and with previous findings from the ***Growing Up in Ireland*** nine-year cohort (e.g. Williams, Greene, Doyle et al, 2009).

The Total Difficulties measure and all the sub-scales from the Strengths and Difficulties Questionnaire (SDQ) showed moderate stability over time, i.e. from three years to five years: total difficulties (r = 0.59, p<0.01); emotion (r = 0.56, p<0.01); hyperactivity (r = 0.50, p<0.01); conduct (r = 0.47, p<0.01); peer problems (r = 0.18, p<0.05) and prosocial behaviour (r = 0.57, p<0.01).

Table 7.2: The Strengths and Difficulties Questionnaire (SDQ) impact score frequencies

		Frequency	Per cent	Valid per cent	Cumulative per cent
Valid	**.00**	129	83.8	83.8	83.8
	1.00	4	2.6	2.6	86.4
	2.00	5	3.2	3.2	89.6
	3.00	6	3.9	3.9	93.5
	4.00	4	2.6	2.6	96.1
	5.00	3	1.9	1.9	98.1
	6.00	1	.6	.6	98.7
	7.00	1	.6	.6	99.4
	13.00	1	.6	.6	100.0
	Total	154	100.0	100.0	

An extended version of the SDQ was used in the pilot to ask whether the respondent thought the child had a problem, and if so, enquired further about chronicity, distress, social impairment, and burden to others. This provides useful additional information for clinicians and researchers with an interest in psychiatric issues and the determinants of service use (Goodman, 1999). Table 8.2 indicates that, while almost 84 per cent of the children were not seen to be affected by difficulties with emotions, concentration, behaviour or interpersonal skills, 16 per cent were affected by difficulties in one or more of these areas to a greater or lesser extent. Not surprisingly, higher impact scores were associated with more difficulties as recorded by the main SDQ measure; for example, for *total difficulties* (r = 0.52; p<0.01). They were also significantly associated with *parental stress* levels (r = 0.35; p<0.01), the parent-child relationship (conflict: r = 0.38; p<0.01; closeness: r = - 0.38; p<0.01) and readiness for school (r = - 0.30; p<0.01).

Recommendations for main phase at five years

- Recommendation was made to maintain the Strengths and Difficulties Questionnaire (SDQ), including the impact measure, for the main study to ensure longitudinal continuity from the first wave of ***Growing Up in Ireland***, and also to enable international comparisons (for example, with the ALSPAC and Millennium Cohort Studies in the UK). The SDQ has also performed well in other waves of the study.

7.2 PIANTA CHILD-PARENT RELATIONSHIP SCALE

7.2.1 INSTRUMENT DESCRIPTION

The Pianta Child-Parent Relationship Scale (CPRS) is a parent-reported assessment of the quality of the relationship with the child. It was completed by both parents. The scale gives measures of perceived *conflict* and *closeness* in the parent-child relationship. The measure is discussed in detail in the *Design, Instrumentation and Procedures for the Infant Cohort at Wave Two (3 years)*.

7.2.2 PERFORMANCE IN THE PILOT STUDY

The internal consistency reliability of both the Closeness and Conflict sub-scales (on the 15-item version) was good for both the Primary Caregiver (0.68 and 0.77) and the Secondary Caregiver (0.77 and 0.76).

Table 7.3: The Strengths and Difficulties Questionnaire (SDQ) impact score frequencies

Mean	Variance	Std. deviation	N of items
33.81	4.441	2.11	7

Table 7.4: Scale statistics for Conflict sub-scale

Mean	Variance	Std. deviation	N of items
14.26	31.318	5.60	8

The validity of the Pianta scores was supported by predicted correlations with measures of emotional and behavioural outcomes as measured by the Strengths and Difficulties Questionnaire (SDQ). Findings indicated a positive association between *conflict* in the parent-child relationship and *emotionality* ($r = 0.31$, $p<0.01$), *conduct* ($r = 0.63$, $p<0.01$), *hyperactivity* ($r = 0.44$, $p<0.01$), and *total difficulties* ($r = 0.57$, $p<0.01$), and a negative association with the child's *prosocial behaviour* ($r = -0.48$, $p<0.01$).

Scores on the Pianta for the Primary Caregiver were also correlated with other conceptually meaningful measures, such as maternal *depression* (as measured by the Centre for

Epidemiological Studies - Depression Scale CESD). Higher levels of *depression* were associated with higher levels of parent-child *conflict* (r = 0.32; p<0.01).

Longitudinally, the Pianta appeared to be a fairly stable measure of the parent-child relationship. Correlations of *conflict* and *closeness* with the Primary Caregiver between the ages of three and five indicated a lot of change among the individual dyads (Conflict - r = 0.48, p< 0.01; Positive - r = 0.47, p< 0.01).

Recommendations for main phase at five years

- The Pianta performed well in the main three-year, nine-year and 13-year waves of the study. Given the importance of the measure in terms of its relationship with other pertinent child measures, it was proposed to retain the measure in its 15-item format for the five-year main study. The Pianta has also been used in the Millennium Cohort Study (MCS) and Longitudinal Study of Australian Children, and so will provide comparability in the international sphere.

7.3 MEASURES NEW TO THE STUDY

7.3.1 PARENTING SENSE OF COMPETENCE (PSOC)

This section will focus on the Parenting Sense of Competence scale (PSOC), which was not used previously in ***Growing Up in Ireland***. However, because a measure of parental stress and a one-item indicator of parental efficacy have been used previously in the study, both will be discussed here, for comparative reasons.

7.3.1.1 Instrument description

The Parenting Sense of Competence (PSOC) (Gibaud-Wallston & Wandersman, 1978, cited in Johnston & Mash, 1989) was piloted for the first time in ***Growing Up in Ireland*** in the five-year pilot study. It is a 17-item scale designed to measure parents' satisfaction with parenting (nine items) and their self-efficacy in the parenting role (eight items). PSOC items are appropriately phrased for the parent completing the questionnaire (e.g. *My mother/father was better prepared to be a good mother/father than I am*). Parents indicate their level of agreement on a scale from 'strongly agree' to 'strongly disagree'.

7.3.1.2 Psychometric information

Acceptable levels of internal consistency (range .75 - .88) have been reported for the PSOC in a number of studies, including Johnston and Mash (1989) and Ohan et al (2000).

7.3.1.3 Performance of the PSOC in the pilot study

In terms of internal consistency reliability found in the current study, alphas were relatively high for the parental *efficacy* (Primary Caregiver: α = 0.77; Secondary Caregiver: α = 0.74) and *satisfaction* sub-scales (Primary Caregiver: α = 0.75; Secondary Caregiver: α = 0.74).

In terms of convergent validity of the PSOC, the scores were cross-referenced against other criteria with theoretical links to efficacy and satisfaction, such as parenting style, emotional

and behavioural difficulties, and the parent-child relationship. Findings from the pilot study showed that parental *satisfaction* as measured by the PSOC was only weakly associated with *parental warmth* ($r = 0.18$, $p<0.05$) and *consistency* ($r = 0.17$, $p<0.05$), and negatively associated with *parental hostility* ($r = -0.35$, $p<0.01$). Parental *efficacy* was not significantly correlated with *parental warmth* or *consistency*, but it was negatively associated with *parental hostility* ($r = -0.27$, $p<0.01$).

In terms of parenting *satisfaction* and emotional and behavioural difficulties, there was a weak correlation between the PSOC *satisfaction* measure and *emotionality* ($r = -0.17$, $p<0.05$), *prosocial behaviour* ($r = 0.17$, $p<0.05$), and *total difficulties* ($r = -0.17$, $p<0.05$) measured with the Strengths and Difficulties Questionnaire (SDQ), while for PSOC *efficacy* there was only a weak correlation with *hyperactivity* ($r = -0.16$, $p<0.05$) and the *total difficulties* score ($r = -0.18$, $p<0.05$). In terms of the parent-child relationship, PSOC *satisfaction* was correlated with relationship *conflict* ($r = -0.32$, $p<0.01$), and *closeness* ($r = 0.30$, $p<0.01$). *Efficacy* was not associated with either *conflict* or *closeness*.

7.3.2 PARENTAL STRESS (PARENTAL STRESSORS SUB-SCALE) AND PARENTAL SELF-EFFICACY (1 ITEM)

7.3.2.1 Instrument description

The Parental Stress Scale (Berry & Jones, 1995) is an 18-item self-report scale designed to assess both positive and negative aspects of parenthood. It comprises four sub-scales: *Parental Rewards* (six items); *Parental Stressors* (six items); *Lack of Control* (three items); and *Parental Satisfaction* (three items). Items are rated on a five-point Likert-type scale ranging from 'strongly disagree' to 'strongly agree'. A total stress score is calculated as a composite of the items (ranging from 18-90). Higher scores indicate higher levels of stress.

Due to time pressures in ***Growing Up in Ireland***, only the six-item Parental Stressors sub-scale was used in the current pilot study, as was the case for the main study at Waves 1 and 2. Further information on this measure is detailed in the report *Design, Instrumentation and Procedures for the Infant Cohort at Wave Two (3 years)*.

A single-item question measuring parental efficacy was also used in the main study at age three. It asked how respondents rated themselves as a parent, with options ranging from 'not very good at being a parent' to 'being a very good parent'. It was included again in the pilot for the five-year-olds.

7.3.2.2 Performance in the pilot study

Internal consistency was high for the Parental Stressors sub-scale in the current study ($\alpha = 0.80$). Table 8.5 summarises the statistics for items contributing to the scale. Higher scores indicate more stress; a total stress score was calculated by summing across the six items (range = 6 – 30). Overall, the scale items showed a good spread of answering, with a minimum and maximum score achieved for all items, although scores were somewhat skewed towards the lower end of the scale. Total *stress* scores for the Primary Caregiver

ranged from six to 26 (the maximum score of 30 was not achieved), with a mean of 11.1 (S.D. = 4.2).

Table 7.5: Summary statistics for individual items on the Parental Stressors sub-scale for the Primary Caregiver*

	N	Minimum	Maximum	Mean	Std. Deviation
Caring for child, more time & energy than I have	153	1.0	5.0	2.0	1.0
Worry whether doing enough for child	153	1.0	5.0	2.8	1.3
Major source of stress is child	153	1.0	5.0	1.4	0.9
Child leaves me little time and flexibility	153	1.0	5.0	1.8	1.0
Child is financial burden	153	1.0	5.0	1.5	0.8
Difficult balance responsibilities due to child	153	1.0	5.0	1.6	0.9
mparstress_5	153	6.0	26.0	11.1	4.2

*See Question S21, Primary Caregiver and Secondary Caregiver Sensitive Questionnaire, Appendix A.

7.4 COMPARISON OF THE NEW PARENTING SENSE OF COMPETENCE (PSOC) AND PREVIOUSLY USED MEASURES OF PARENTAL STRESSORS AND EFFICACY

Using the same correlations for parental *stressors* and *efficacy* as for the Parenting Sense of Competence (PSOC), there were no correlations between the previously used measure and parental *warmth* and *consistency* (compared to a weak association for the PSOC).

Table 7.6: Parental satisfaction/stress and parental efficacy by parenting style

		Parental warmth	Parental hostility	Parental consistency
Parental satisfaction (PSOC)	**Pearson Correlation**	.178*	-.353**	.168*
	Sig. (2-tailed)	.028	.000	.037
	N	153	153	153
Parental efficacy (PSOC)	**Pearson Correlation**	.107	-.274**	.094
	Sig. (2-tailed)	.188	.001	.247
	N	153	153	153
Parental Stressors sub-scale	**Pearson Correlation**	-.133	.413**	-.128
	Sig. (2-tailed)	.100	.000	.114
	N	153	153	153
Best description of how you feel about yourself as a parent (one-item measure of efficacy)	**Pearson Correlation**	.141	-.384**	.089
	Sig. (2-tailed)	.083	.000	.272
	N	153	153	153

However, correlation with *parental hostility* proved stronger for the parental *stress* measure (r = - 0.41, p<0.01), than for the PSOC *satisfaction* measure (r = 0.35, p<0.01). While parental *efficacy* was negatively correlated with parental *hostility*, again the correlation with *hostility* was stronger for the one-item measure of *efficacy* (r = -0.38, p<0.01) used previously compared to the longer measure being piloted (r = -0.27, p<0.01).

For the Pianta parent-child measure, the parental *stress* measure (for the most part) also correlated more strongly with Strengths and Difficulties Questionnaire (SDQ) scores, as well as with the parent-child *conflict* measure, compared to the PSOC measure of *satisfaction*. The previously used one-item measure of parental *efficacy* also correlated in the expected manner with the SDQ and Pianta scores, and it performed at least as well, if not better, than the *efficacy* sub-scale of the PSOC.

The *depression* status of the Primary Caregiver (measured by the Centre for Epidemiological Studies Depression Scale – (CESD)[6]) was associated with parental *stress* and *satisfaction* (stress: r = 0.33, p<0.01; satisfaction: r = - 0.29, p<0.01). Maternal *stress* was also associated with *family type*; single parents were more stressed than those in two-parent households (r = 0.24, p<0.01).

Recommendations for main phase at five years

- The findings showed that the Parenting Sense of Competence (PSOC) performed relatively well in the pilot study. However, given the longitudinal nature of the study, the previously used stressors sub-scale from the Parental Stress Scale plus the one-item measure of parental efficacy also performed just as well, if not better, than the new measure. It was recommended therefore that these be maintained for the main study and that PSOC not be included.

7.5 CHILD DEPRIVATION INDEX

7.5.1 INSTRUMENT DESCRIPTION

The measure of child deprivation discussed here looked specifically at goods and services that children lacked because the household could not afford them. Derived from the EU Survey on Income and Living Conditions (SILC) module on deprivation (introduced in 2009), the indicator of child-specific deprivation was based on responses from the Primary Caregiver regarding what the five-year-old Study Child had or was able to do (see Watson, Maitre & Whelan, 2012). An index of deprivation was based on 15 items across a number of dimensions, including two items about any time in the last 12 months when the child

[6] See Lewinsohn e al., 1997.

needed medical or dental care but the family could not afford it. The current study used all items except affordability of dental visits.

Table 7.7: Frequency of affordability of poverty items for those that have/or do the item

	Has/does (%)	Cannot afford (%)
New clothes	98.1	1.3
Properly fitting shoes	97.4	1.9
Eats fruit and vegetables	96.1	3.9
Eats 3 meals a day	98.7	1.3
Eats daily protein meal	96.8	1.9
Has books at home	98.1	1.3
Has outdoor leisure equipment	99.4	0.6
Has indoor games	97.4	2.6
Participates in regular leisure activities	85.1	2.6
Has parties or celebrations	99.4	0.6
Invites friends to play	92.9	0.6
Can afford to go on school trip	95.5	0.6
Suitable place for homework	98.1	1.9
Outdoor space to play	98.1	1.9
Made required doctor visit(s)	2.6	2.6

7.5.2 RESULTS FROM THE PILOT STUDY

Internal consistency reliability for the 15-item scale was lower than desirable, at 0.40.

As can be seen from the table of frequencies (Table 8.7), although a small number of children were experiencing some deprivation, the vast majority were not. Based on not being able to afford items on the scale, 6.5 per cent of children lack or cannot do one or more of the items, while 2.5 per cent of the sample lack or cannot do two or more items.

Table 7.8: Number of items on which child is deprived on child deprivation scale

		Frequency	Per cent	Valid per cent	Cumulative per cent
Valid	**.00**	144	93.5	93.5	93.5
	1.00	6	3.9	3.9	97.4
	2.00	2	1.3	1.3	98.7
	4.00	1	.6	.6	99.4
	7.00	1	.6	.6	100.0
	Total	154	100.0	100.0	

Were particular groups of children more at risk of child-specific deprivation? Not surprisingly, coming from a deprived household was a risk factor; seven out of the 10

children experiencing child deprivation lived in households which were deprived (12.3 per cent of pilot households lacked/could not do two or more items on the household deprivation scale). Furthermore, deprived children were significantly more likely to be in lower-income households ($F=4.95$, $p<0.05$). Child deprivation was also negatively correlated with mother's age and education (age: $r = -0.36$, $p<0.01$; education: $r = -0.20$, $p<0.05$), and with the number of parents in the household; i.e. children in one-parent households were more likely to experience child deprivation ($r = -0.32$, $p<0.01$).

Recommendations for main phase at five years

- Although the reliability for this measure was low, at 0.40, it was seen as an important construct from a policy and analytic perspective. It was therefore recommended that it be retained for the main study.
- The item on affordability of dental visits from the original Child Deprivation Index was also to be included in the measure.

7.6 SCHOOL READINESS AND ADJUSTMENT TO SCHOOL

7.6.1 INSTRUMENT DESCRIPTION

The data considered in this section are based on a general parental perception of how ready the child was for school. A measure of school readiness used a sub-section of questions that were previously used in Growing Up in Scotland, where parents were asked to record the extent to which they agreed or disagreed with a set of statements, such as 'I was worried that [child name] would find being apart from me too difficult', 'I was concerned that [child name] would be reluctant to go to primary school' and 'I felt that [child name] was able to mix with other children well enough to get along at primary school'. Seven statements in total were used in the ***Growing Up in Ireland*** pilot.

A further set of questions was asked in order to tap into school adjustment for those children who had already started school (almost all children in the pilot); for example, how often the child had complained about school, said good things about school, looked forward to going to school, or been upset or reluctant to go to school.

7.6.2 PERFORMANCE IN THE PILOT STUDY

Alphas of 0.72 and 0.55 were found for the school *readiness* scale and *adjustment* scale respectively, and school *readiness* was, not surprisingly, correlated with having problems in school *adjustment* ($r = -0.22$, $p<0.01$). The scores were somewhat skewed in terms of parents holding a positive view of their child's *readiness* for school, although there was a reasonable spread in terms of the range of responses to the items on the scale, except for item b where all respondents believed that their child understood enough about taking turns and sharing to manage at primary school.

School *readiness* correlated with other measures in the expected manner. For example, it correlated negatively with parental *stress* (r = - 0.22, p<0.01) and positively with mother's *education* (r = 0.23, p<0.01). As per findings from the literature, children with behavioural or other adjustment problems were less likely to show *readiness* for school, as demonstrated by negative correlations with the deficit-focused scales of the Strengths and Difficulties Questionnaire (SDQ) as well as the *total difficulties* score (r = - 0.36, p<0.01), but not with *prosocial behaviour* (r = 0.32, p<0.01) for which there was a positive association.

School *readiness* was also associated with the parent-child relationship, *conflict* being negatively associated with school *readiness* (r = - 0.21, p<0.05) as opposed to *closeness* which linked positively (r = 0.25, p<0.01). *Consistency* in terms of parenting style was also linked to school *readiness* (r = 0.29, p<0.01).

Recommendations for main phase at five years

- The measures of school readiness were recommended for use in the main study, but only in respect of readiness for primary school. As discussed in Chapter 4 above, attempting to record details on preschool *and* school readiness was found to be problematic.

7.7 CHILD TEMPERAMENT

7.7.1 INSTRUMENT DESCRIPTION

In ***Growing Up in Ireland*** infant temperament was measured at Wave 1 using the Infant Characteristics Questionnaire and at three years with an abbreviated version of the Short Temperament Scale for Toddlers (STST; Prior, Sanson, Smart et al, 2000), which has been used in the Longitudinal Study of Australian Children.

At five years, child temperament was measured using adapted items from the Short Temperament Scale for Children (STSC) (Sanson, Smart, Prior, Oberklaid & Pedlow, 1994). The STSC is a modified form of the Childhood Temperament Questionnaire (Thomas & Chess, 1977) that was developed after factor analysis of data from the Australian Temperament Project (ATP). It has normative factor scores derived from the large ATP study (n = 2433) (Sanson, Prior, Garino, Oberklaid & Sewell, 1987). The shortened version of the STSC was designed to assess temperament dimensions in children aged between three and seven. There are three sub-scales measuring: persistence or attentional self-regulation (four items); reactivity (encompassing cooperativeness, irritability and flexibility); and sociability, approach, inhibition or social withdrawal (four items). Responses are on a six-point scale where 1 = 'almost never' to 6 = 'almost always'.

7.7.2 PSYCHOMETRIC INFORMATION

Psychometric information from the Longitudinal Study of Australian Children (LSAC) indicates that the items comprising the various scales have acceptable internal-consistency reliability and excellent model fit when subjected to confirmatory factor analyses.

7.7.3 PERFORMANCE IN THE PILOT

Analysis of the ***Growing Up in Ireland*** pilot data revealed that alphas were good for the *persistence* (0.78) and *sociability* (0.79) scales, but somewhat lower for the *reactivity* scale (0.50).

Because temperament has been linked to manifestations of internalising or externalising behaviours, Strengths and Difficulties Questionnaire (SDQ) scores were used to test this theory. Correlations ran as expected, showing a negative relationship between *persistence* and *sociability* on the STSC and all deficit-focused sub-scales of the SDQ, including the *total difficulties* score. The opposite was true for *reactivity,* which was positively associated with the deficit-focused scales but negatively associated with *prosocial* behaviour as measured by the SDQ. The correlations are shown in Table 7.9.

Table 7.9: Results of Pearson correlation between SDQ total difficulties score and scores on the three temperament sub-scales

		SDQ_ emotionality	SDQ_ conduct	SDQ_ hyperactivity	SDQ_ peer	SDQ_ prosocial	SDQ_ total
Persistence		-.187*	-.326**	-.520**	-.251**	.327**	-.506**
	Sig.	.020	.000	.000	.002	.000	.000
	N	154	154	154	154	154	154
Sociability		-.362**	-.156	-.020	-.125	.328**	-.215**
	Sig.	.000	.054	.802	.122	.000	.007
	N	154	154	154	154	154	154
Reactivity		.251**	.510**	.265**	.185*	-.420**	.430**
	Sig.	.002	.000	.001	.022	.000	.000
	N	154	154	154	154	154	154

*Correlation is significant at the 0.05 level.
**Correlation is significant at the 0.01 level.

Longitudinally, it was possible to contrast the scores from the Short Temperament Scale for Toddlers (STST) temperament scale at three years with the Short Temperament Scale for Children (STSC) at five years (Table 8.10). Moderate correlations were found for the sub-scales across time. *Sociability* at age three and *persistence* at age five were also positively correlated. Measures of temperament in infancy did not correlate significantly with measures at five years, except for the *unadaptable* sub-scale of the Infant Characteristics Questionnaire (ICQ), which corresponded negatively with *sociability* at five (r = - 0.27, p , 0.01).

Table 7.10: Correlations between temperament scores at age 3 and age 5

		Persistence_5	Sociability_5	Reactivity_5
Persistence_3	**Pearson r**	.265**	.117	-.071
	Sig.	.001	.161	.396
	N	145	145	145
Sociability_3	**Pearson r**	.253**	.341**	-.163
	Sig.	.002	.000	.051
	N	144	144	144
Reactivity_3	**Pearson r**	-.136	-.025	.225**
	Sig.	.102	.769	.007
	N	145	145	145

*Correlation is significant at the 0.05 level.
**Correlation is significant at the 0.01 level.

All waves of the Infant Cohort have now included a single question reflecting the Primary Caregiver's overall perception of how easy or difficult the child was. The answer options at three years and five years were *easier than average*, *about average*, and *more difficult than average*. For the ICQ, respondents used a seven-point scale where 1 was anchored as *super easy*, 4 as *ordinary, some problems* and 7 as *highly difficult to deal with*.

There was reasonable correspondence between ratings from age three to age five. Almost 64 per cent of those who were rated as *easier than average* at age three were also rated *easier than average* at age five. A total of 59.5 per cent of those rated as *average* at age three remained in this group at age five, while 40 per cent of those who were seen as *more difficult than average* at age three remained so at age five; the remaining 60 per cent were now rated as *average*, although the numbers in this group were very small to begin with.

Recommendations for main phase at five years

- Given the importance of a measure of temperament, use of the Short Temperament Scale for Children (STSC) was recommended for the main study, both for longitudinal consistency and for comparability with other studies such as the Longitudinal Study of Australian Children (LSAC).

7.8 SOCIAL SKILLS IMPROVEMENT SYSTEM – RATING SCALES (SSIS–RS)

7.8.1 INSTRUMENT DESCRIPTION

The Social Skills Improvement System (SSIS: Gresham & Elliot, 2008) Rating Scales enables targeted assessment of individuals and small groups to help evaluate social skills, problem behaviours and academic competence. It was designed to replace the Social Skills Rating System (SSRS). In addition, it can be used to identify specific social behaviour acquisition and performance deficits that can be addressed with skill-building school and home

interventions and identify social skills strengths. It has also been used to provide a baseline for post-intervention progress evaluation as well as to track progress. The SSIS can be used with those aged three to 18.

The constructs measured included Social Skills, Problem Behaviours, and Academic Competence. Only Social Skills were tested in the pilot study. Sub-scales within the Social Skills measure included Communication, Cooperation, Assertion, Responsibility, Empathy, Engagement and Self-control.

7.8.2 PSYCHOMETRIC INFORMATION

Internal reliability for the SSIS–RS as reported by the authors was moderate to high: Communication (α = 0.77), Cooperation (α = 0.85), Assertion (α = 0.78), Responsibility (α = 0.86), Empathy (α = 0.87), Engagement (α = 0.85), Self-control (α = 0.84). For the overall Social Skills measure, internal consistency was high (α = 0.96).

Evidence of validity for the scores obtained from the SSIS–RS has been demonstrated by correlational studies with other widely used instruments such as the Behavioral Assessment System (2nd ed.; BASC–2; Reynolds & Kamphaus, 2004), the Social Skills Rating System (SSRS) (Gresham & Elliott, 1990), and the Vineland Adaptive Behavior Scale (2nd ed.; Vineland II; Sparrow et al, 2005). Overall, the SSIS–RS shows moderate to high correlations (depending on the scale and sub-scale) with each of these instruments (see Gresham & Elliott, 2008, for more detail). Finally, the SSIS–RS has been shown to differentiate members of special populations such as those with attention deficit/hyperactivity disorder, autism spectrum disorder, developmental delay, emotional/behavioural disturbance, intellectual disability, and speech/language impairment (see Gresham & Elliott, 2008).

7.8.3 PERFORMANCE IN THE PILOT STUDY

This scale performed well in terms of its internal consistency. The following alphas were found for the sub-scales: *Communications* (α = 0.78), *Cooperation* (α = 0.85), *Assertion* (α = 0.77), *Responsibility* (α = 0.87), *Empathy* (α = 0.87), *Engagement* (α = 0.82) and *Self-control* (α = 0.83). For the overall *Social Skills* measure, internal consistency was high (α = 0.95).

The validity estimates revealed expected convergent relationships with other measures. For example, the SSIS–RS correlated with the Strengths and Difficulties Questionnaire (SDQ), in that all aspects of social skills correlated negatively with the deficit-focused scales (including the *total difficulties* score) on the SDQ, and positively with the *prosocial* measure (*Communications*: r = .47, p<0.01; *Cooperation*: r = .54, p<0.01; *Assertion*: r = .38, p<0.01; *Responsibility*: r = .63, p<0.01; *Empathy*: r = .59, p<0.01; *Engagement*: r = .49, p<0.01; *Self-control*: r = .45, p<0.01). Associations with the various aspects of temperament were also explored and, as expected, higher *persistence* was positively associated with all aspects of social skills, while *reactivity* was negatively correlated. In terms of *gender* differences, no differences were found on any of the SSIS–RS sub-scales.

Recommendations for main phase at five years

- As per discussion in Chapter 4, the scales recommended for use in the main study were those relating to *Assertion*, *Responsibility*, *Empathy* and *Self-control* as it was felt that these tapped in to issues of particular importance for five-year-olds, given the important role of social skills in young children's successes both inside and outside school. This information would also complement the information already being collected through the SDQ and the temperament measure.

7.9 DIET AND NUTRITION

Obesity levels among children are a major public health issue and have attracted substantial attention from policymakers and others in the outputs prepared from ***Growing Up in Ireland***. The pilot survey of the five-year sweep carried an expanded diet and nutrition food frequency module to allow more in-depth analysis and advice to policymakers in this area. The module was developed by Dr Celine Murrin for use in the LifeWays Study, which is being carried out by University College Dublin, and so has been previously used in an Irish context. The instrument has 53 items requesting the average frequency with which the child consumed different types of foods and drinks in the last year. Outcome codes include *Never, Less than once per month, At least once per month, At least once per week, Most days, Once a day, 2-3 per day, 4-5 per day, 6+ per day*.

The resulting data were processed using a software program developed by Juzer Lotya (UCD), which produces total consumption of different foods plus the nutrient intake consumed as part of each class of food. Information on the following eight food classes is outputted:

- Cereals, breads and potatoes
- Dairy products and fats
- Drinks
- Fruit
- Meat, fish and poultry
- Milk
- Sweets, snacks and pastry
- Vegetables

Overall and for each food class it should be possible to produce the following macro and micro nutrient information:

Kilocalories	Starch (g)	Folate (ug)
Kilojoules	Fibre (g)	Vitamin C (mg)
Protein (g)	Retinol (ug)	Vitamin D (ug)
Fat (g)	Carotene (ug)	Vitamin E (mg)
Carbohydrate (g)	Retinol equivalent (ug)	Phosphorous (mg)
Monounsaturated fatty acids (g)	Thiamine (mg)	Calcium (mg)

Polyunsaturated fatty acids (g)	Riboflavin (mg)	Iron (mg)
Saturated fatty acids (g)	Niacin (mg)	Selenium (ug)
Cholesterol (mg)	Vitamin B6 (mg)	Zinc (mg)
Total sugar (g)	Vitamin B12 (ug)	Sodium (mg)
Copper (mg)	Manganese (mg)	Potassium (mg)
Chloride (mg)	Iodine (ug)	Magnesium (mg)
Arsenic (mg)	Tin (mg)	Lead (mg)
Cadmium (mg)	Mercury (mg)	Iodine (mg)

Table 7.11 gives descriptive statistics for the distribution of the total quantities (servings per day in grammes) for each of the food classes. These totals represent the sum of all of the foods within each class. Quantities of each component are also produced by the program.

Table 7.11: Descriptive statistics of food classes (N=146)

Food class	Mean	SD	25th	Median	75th	99th
Drinks	296.4	261.8	136.0	242.1	400.0	1145.5
Fruit	204.3	126.8	107.5	214.0	261.6	685.1
Sweets and Snacks	75.6	85.2	26.6	51.4	91.2	355.6
Meat, Fish and Poultry	84.0	79.6	41.9	55.9	92.3	432.0
Milk	261.0	188.6	153.0	153.0	382.5	918.0
Vegetables	78.6	181.6	28.9	49.4	94.0	365.3
Dairy and Fats	151.3	135.1	71.6	141.1	184.1	766.5
Cereals, Breads and Potato	224.2	162.2	153.4	195.1	246.7	1146.0

The pattern of nutrition and dietary data is usually one of normality, albeit with a 'peaked' distribution and a long right tail (i.e. some cases consuming large quantities of foods). Table 8.11 shows that for six of the eight classes the mean is larger than the standard deviation, with only two (sweets and snacks; vegetables) exhibiting over-dispersion (where the mean is smaller than the standard deviation). The exception of 'top shelf' items and vegetables is relatively common in studies internationally and contributes to the bunching of individuals and families into clusters of consumption types. As expected, this relative normality is accompanied by strong 'peakedness', as indicated by the large kurtosis and long right tails to the distribution and evidenced by the positive skew statistics for all dimensions.

7.9.1 RESULTS FROM THE PILOT STUDY

Although the measure was quite long, feedback from the interviewers in the debriefing session suggested that it hadn't been particularly onerous for either them or the respondents.

A common finding in nutrition research is that men have worse diets than women. The pilot results also highlighted some gender differences. Five-year-old boys consumed more fat and sugar and less fibre, and girls consumed higher levels of cholesterol. Boys also consumed more vitamin C and calcium. These patterns are purely indicative as these relativities should

be adjusted for total calorific intake (boys are physically larger on average and so will consume more food on average; they consumed 1,592 kilocalories daily on average in the pilot data compared to 1,526 among girls).

Variation in composition by maternal education, family deprivation and child BMI were also explored in the context of previous research, including ***Growing Up in Ireland,*** reporting the importance of these factors in relation to food consumption. Table 8.12 gives mean daily servings by food class, maternal education, family deprivation and BMI group.

Table 7.12: Mean daily servings by food class, maternal education, family deprivation and BMI (N=146)

Food class	Drinks	Fruit	Sweets and Snacks	Meat, Fish and Poultry	Milk	Vegetables	Dairy and Fats	Cereals, Breads and Potato
Junior Cert	358.4	194.3	111.0	108.6	291.5	66.0	164.6	221.7
Leaving Cert	330.8	197.7	59.7	82.5	263.7	48.4	172.3	224.0
Tertiary	229.7	216.0	65.8	69.6	239.5	89.4	126.1	226.1
Low Deprivation	270.9	205.8	70.3	72.4	248.7	52.2	144.3	210.4
Medium Deprivation	295.1	234.1	81.2	124.7	325.4	193.5	149.9	255.3
High Deprivation	427.5	171.1	97.9	108.3	268.0	53.6	188.0	267.8
Healthy BMI	282.7	208.6	73.8	81.7	258.5	74.2	141.6	222.7
Overweight BMI	333.7	199.4	78.0	98.7	296.4	52.9	189.7	235.2
Obese BMI	374.0	158.7	93.5	69.8	185.8	61.5	168.1	211.2

Children in less educated and more deprived households tended to have worse diets in terms of sweets, and snacks, and sweetened drinks. Consumption of dairy and fats (yogurts, cheese, butter and oils) were also higher among the more disadvantaged. Fruit and vegetable consumption was higher among the most advantaged, but the pattern is not simple.

Overweight or obese children consumed higher levels of sweets and snacks and sweetened drinks; the difference between groups was particularly large for the latter. They also consumed less fruit and more dairy and fats. Once again, the patterning for vegetable intake is more complex, although the healthy BMI group consume more.

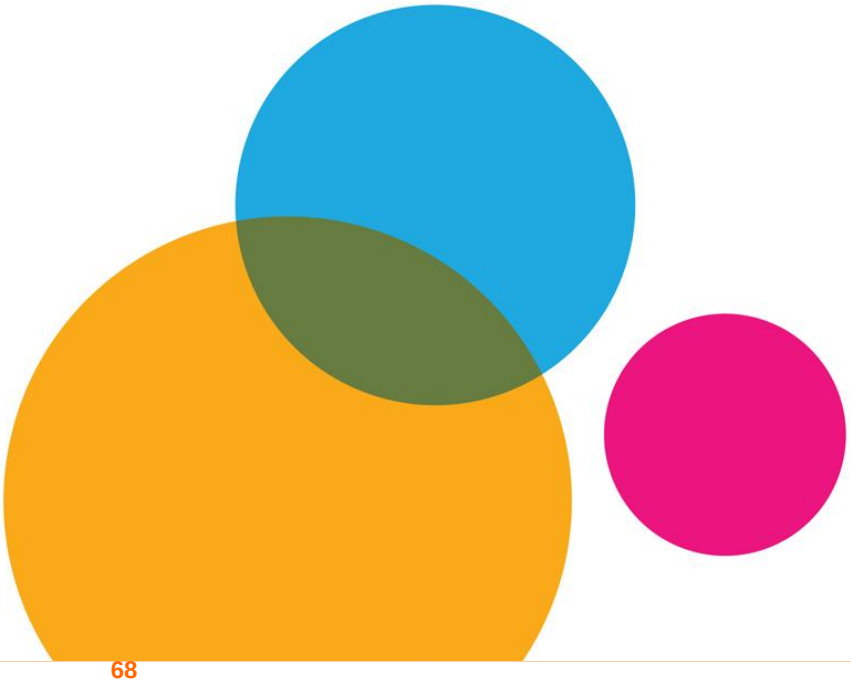
Recommendations for main phase at five years

- Overall, the food frequency questionnaire performed very well in terms of the pattern of responses. It yielded a large amount of detailed data that

appear to be structured by variables that we would assume would be important. Since it records information in a policy-relevant and policy-amenable space, it was recommended for inclusion in the main phase of the study.

Chapter 8

CONSENTS AND PERMISSIONS FOR DATA LINKAGE



CONSENTS AND PERMISSIONS FOR DATA LINKAGE

8.1 INTRODUCTION

A number of consents and permissions for data linkage were secured in the course of the pilot and were proposed to be continued to the main study. These were: (i) general consent for participation in the current sweep; (ii) permission to link to Pobal and Department of Children and Youth Affairs (DCYA) databases on childcare providers; the Primary Care Reimbursement Service (PCRS), and (iii) permission to access the school to complete the Teacher-on-Pupil Questionnaire. Each is considered below. All proposed consent forms and the parent/guardian Information Leaflet are included in Appendix B.

8.2 GENERAL CONSENT FORM

This worked well in the pilot. The Consent Form used can be taken in tandem with the Information Leaflet. As noted in Chapter 2, the Information Leaflet was posted to the family with a covering letter in advance of the interviewer's visit to the home. On his/her first visit to the home the interviewer went through the Information Leaflet with the family and secured informed consent before commencing work. No issues on process of informed consent were raised with the Study Team in back-check questionnaires sent to all families who participated in the pilot. The interviewers did not report any issues in this area in the course of fieldwork or at the debriefing session.

8.3 ACCESS TO ASSESSMENT DATA ON CHILDCARE PROVIDERS AND PRESCHOOL FACILITIES

Pobal, which manages various funding programmes on behalf of the Irish Government and the EU, undertakes a site visit and assessment of all childcare and preschool providers that provide services subvented by the Exchequer, principally including those under the Free Preschool Year scheme. The purpose of the site visit is to ensure compliance with the terms of the subvention programme. Some of the information collected in the course of the assessment process (specifically on the number of children and staff in the childcare provider as well as the qualifications of the staff employed) may offer some analytic traction for ***Growing up in Ireland***. Some research suggests that both staff/child ratios and the qualifications of staff are related to developmental outcomes. To achieve the linkage to survey data requires collection of the child's PPS number. This can be used to trace the child through databases maintained by the Early Years Unit of the Department of Children and Youth Affairs (DCYA) to establish the name of the childcare provider.[7] The identification number of the childcare provider can then be used to access the information on the

[7] The linkage process is currently under way with the DCYA, Pobal and the Study Team.

provider, which is maintained by Pobal through its site visit and assessment process. The Consent Form and Information Leaflet proposed for the main wave is included in Appendix B.

In the course of the pilot the family was asked to provide the consent to link to the Pobal / DCYA databases on childcare providers. Each family was asked to provide the Study Child's PPS number for linkage through the DCYA part of the system. They were also asked to provide the name of the childcare provider. The latter was recorded to act as an alternative link in cases where the PPS number was incorrect or did not register on the system. In total, 144 families provided the requested information. A total of 122 provided details on the child's PPS number and 137 provided information on the name of the service provider; seven families provided only the PPS number and a further 22 provided only the name of the childcare provider. The Study Team estimates that (on the basis of their structure) up to 11 per cent of the PPS numbers provided may be incorrect, thus justifying the recording of the name of the childcare provider as a fallback position for linkage purposes.

8.4 THE PRIMARY CARE REIMBURSEMENT SERVICE (PCRS) DATA

The Primary Care Reimbursement Service (PCRS) covers payments to general practitioners, dentists, pharmacists and other health professionals on behalf of the Health Service Executive. The system holds information on the prescriptions and treatments given to individuals under the General Medical Services (GMS). This information could prove very useful for research purposes; it would allow examination, for example, of the types of drugs which were prescribed to the Study Children. It will, by definition, be available at most only in respect of those Study Children covered by the GMS medical card, which entitles the holder to a range of health services free of charge.

In the course of the pilot, 44 families interviewed indicated that they were covered under the GMS scheme. Permission to link to the PCRS was given by 42 of these families. The families were asked to provide the Study Child's medical card number and name of his/her GP. This shows that 24 of the 44 families provided both medical card number and GP name, while a further eight provided only the name of the GP and 10 only the medical card number.

The quality of the medical card numbers is uneven, though the name and address of the GP provides a fallback position in these cases. Addresses were not given in respect of two of the 34 GPs named.

8.5 PERMISSION TO ACCESS THE STUDY CHILD'S TEACHER FOR COMPLETION OF TEACHER-ON-CHILD QUESTIONNAIRE

The school-based pilot is discussed in Part II of this report. It is, however, appropriate to briefly consider success in identifying the school attended by the Study Child in the course of the home-based interview as well as compliance with consent to approach the school to request that the teacher complete a Teacher-on-Child Questionnaire. As noted in Chapter 3,

given the slightly older age profile of the children in the pilot, all but one of the respondents was in school. In all, a 95 per cent response rate was achieved in obtaining the required information from families in the household.

8.6 RESPONDENT GIFTS

The budget for this phase of the project did not allow for any respondent gifts. In the course of debriefing, a number of interviewers spontaneously noted that the absence of gifts had been commented upon by several respondents.

Chapter 9

SUMMARY

9. SUMMARY

- The details of the changes to be made between the piloting and main phases of the study have been outlined in detail in previous chapters. This chapter provides a brief overview of some of the main points emerging from the household pilot phase of the Infant Cohort at five years.
- The pilot worked well. In operational terms, the response rate among families who had participated in the previous phase was just over 90 per cent.
- The inclusion of the families who had refused or who otherwise had not participated in the study at three years did not pose any major issues in the field. When the 'refusals' and 'no contacts' of phase two were included, the overall response rate fell from almost 91 per cent to 84 per cent. This is in line with expectations and international trends. It underlies the need to implement proactive and reactive tracking procedures as well as to address differential attrition in the reweighting of the data. The inclusion of the groups in question does not, however, seem to have presented a heightened reputational risk for the study in returning to families who previously had not participated. The recruitment and consenting process adopted in the pilot phase appears to have avoided any issues of that nature.
- Although the number of additional respondents is relatively low and there are technical issues around how to include them in subsequent analysis, the families in question are, relatively speaking, disproportionately disadvantaged. In this respect they are particularly relevant for inclusion in the study from a policy, service delivery and intervention perspective. The Study Team recommended that they be included in the main study.
- Another important point to emerge from the pilot was the length of the instruments. They took an average of over three hours in the home to administer (184 minutes). Therefore, it was imperative that cuts be made, not only to assist cross-sectionally in this phase of the project but also longitudinally in terms of maintaining response rates in subsequent phases.
- The main amendments to the instruments are detailed in Chapters 4 to 8. These include:
    - Change in reference for accidents to 'most recent' to provide a representative sample of accidents experienced by five-year-olds .
    - Removal of the section on dental care. It is a separable section.
    - Removal of questions on snacking behaviours and about whom the Study Child eats main meals with, so as to make space for a much expanded section on dietary profile of the child. This latter should allow the debate on childhood obesity and related topics to be advanced from research based on ***Growing Up in Ireland***.
    - Reduction in the number of sub-scales for inclusion from the Social Skills Improvement System (four to be kept out of seven). The complete scale was very long and the Study Team felt that it overlapped in some areas with other scales that had already been included on a longitudinal basis.
    - Removal of the Pediatric Quality of Life Inventory (PedsQL), which was completed by the Primary Caregiver. It did not scale well and did not relate to other questions on development as one might have expected it to.
    - Section G on school/childcare/preschool was the most restructured area of the questionnaire. Some of the scales worked well, with good reliability statistics – for

example, the school readiness scale. Attempting to record details on both preschool and school readiness and adjustment was found not to be feasible, and both measures were highly correlated. Accordingly, it was recommended retaining questions on school readiness and adjustment only in situations where the child has started primary school. General questions on satisfaction with childcare were removed as they displayed very limited variance. Some of the questions on quality activities undertaken in childcare scaled well and these have been retained. Overall, the section on school/preschool/childcare worked well.

- The questions on use of the Community Childcare Subvention (CCS), the Childcare Employment and Training Support Scheme (CETS) and Early Start were removed, and it was decided to focus on the Free Preschool Year.
- The parental support items were removed from the Primary Caregiver and Secondary Caregiver questionnaires. Although interesting, they are not child-centred, were very onerous and were not well received by respondents.
- The only substantial recommended removal from the Secondary Caregiver Questionnaire was the questions on parental support.
- The scale on parental self-efficacy (Parenting Sense of Competence Scale) was removed from both the Primary Caregiver and Secondary Caregiver Questionnaires. The single item carried in previous waves of the study correlated strongly with it.
- The British Ability Scales (BAS) tests (naming vocabulary and picture similarity) worked well, though high percentages of five-year-olds scored above their age, based on the test norms. The norming sample for this age cohort (120 children) was smaller, however, than the ***Growing Up in Ireland*** pilot sample. The data will be used to establish where the child is located within the distribution of the ***Growing Up in Ireland*** children.
- The Pediatric Quality of Life Inventory (PedsQL) did not work well in the pilot study. It was not as strongly correlated with other characteristics, as one might have expected it to be, and the extent to which it was not understood by the children was spontaneously commented upon by quite a number of respondents.
- The dietary profile section has been substantially enhanced compared with that used in previous rounds of the study; this should provide a substantially disaggregated breakdown of the child's nutritional intake relative to previous waves.
- Permissions and consents worked well, with high compliance levels throughout.

Part II considers the school-based element of the pilot study.

Chapter 10

SUMMARY

PART II

10. INTRODUCTION TO THE SCHOOL PHASE OF THE PILOT

10.1 INTRODUCTION AND CONTEXT

Part II of the pilot report focuses on the school-based component for the Infant Cohort at five years of age.

Almost all children in Ireland start primary school in September of any year. Children may start school from four years of age but must have started their formal education by age six. At the time of piloting, the Study Team did not know when the Study Children would start school. Given the ages of the children and based on a postal sample of 500 children carried out in summer 2012, the team estimated that approximately 60 per cent of children would have started in September 2012, with the remainder starting in September 2013.

Fieldwork in the home had to be completed in order to know whether or not, and when and where the child had started school. The information relating to the child was therefore recorded in the Primary Caregiver Questionnaire during the home-based component of the pilot. Importantly, the Primary Caregiver was also asked to sign a consent form granting permission for the Study Team to approach the Study Child's teacher in the school, with a view to getting the teacher to complete a detailed Teacher-on-Pupil Questionnaire.

Fieldwork was undertaken in the schools between November 2012 and February 2013; 60 schools (containing 82 ***Growing Up in Ireland*** Study Children) were approached for this pilot work. Three types of questionnaire were completed in the course of the pilot: the Principal Questionnaire; the Teacher-on-Self Questionnaire and the Teacher-on-Pupil Questionnaire.

Clearly, the design adopted for this phase of the project required that the home-based phase of the project precede the school-based phase so that the necessary information on school starts could be recorded.

10.2 RELEVANCE OF THE SCHOOL-BASED COMPONENT

Research has shown that children's early-years development can not only have a strong bearing on their educational attainment but help to determine the pattern of their adult lives. It can partly predict the kind of jobs they will do and the income they will earn. Establishing why some children make a better start than others is therefore a crucial aspect of the drive to reduce inequalities, and the context in which this occurs is clearly very important. Underpinning much of the current thinking on transitions research is the ecological systems model of development, proposed by Bronfenbrenner (1979; 1992) and adopted as the underlying conceptual framework for ***Growing Up in Ireland***. This model is described in *Growing Up in Ireland – Background and Conceptual Framework.*

Chapter 11

DESIGN, IMPLEMENTATION AND RESPONSE RATES

11. DESIGN, IMPLEMENTATION AND RESPONSE RATES

11.1 INTRODUCTION

As mentioned above, the sample for the school-based component was generated in the course of the home-based interview. As part of the Primary Caregiver interview, the respondent was asked whether or not the Study Child had started school, and if yes, when s/he had started; if not, when s/he would be starting. The name and contact details of the school were also recorded. It was explained to the Primary Caregiver that the Study Team wished to approach the Study Child's teacher with a view to getting him/her to complete a questionnaire about the child. It was also explained that the school principal would be asked to complete a questionnaire about the school, its resources and management, and that the teacher would be asked to fill out a questionnaire recording information on him/herself.

11.2 THE SAMPLE AND CONSENT TO APPROACH THE TEACHER

A total of 162 families participated in the home-based component of the study. Just over 95 per cent (154) of these signed a consent form granting permission to approach the teacher to complete the Teacher-on-Pupil Questionnaire.

A total of 126 primary schools were identified in the home-based component of fieldwork as containing a Study Child. It was agreed with the Department of Children and Youth Affairs (DCYA) that a sample of 60 of these schools would be selected for inclusion in the school-based pilot. The 60 schools selected contained 82 Study Children. The selected schools included all of the pilot schools identified as having more than one Study Child.

The sample was highly diversified in terms of size, structure and Delivering Equality In Schools (DEIS) status. They ranged in size from approximately 30 to over 800 pupils, with a corresponding range in the number of teachers. Almost one-quarter were designated as DEIS schools.

The average number of Study Children per teacher was low: an average of just over 1.1. The maximum number of Study Children for any teacher was three. There are approximately 3,200 primary schools in the country, and, as the original sample in the Infant Cohort was not clustered in any way,[8] the Study Team would have to capture a large percentage of these schools in the main phase with the five-year-olds (something of the order of 2,600–2,800), although at this point it is not possible to make an accurate estimate of this. Working on this assumption, however, would give an average of approximately 3.5 Study Children per school. On balance, therefore, the load per individual teacher is likely to be quite low and may average out in the region of 2.0-2.5 pupils. Accordingly, teacher respondent burden in terms of the number of teacher-on-pupil questionnaires being completed by any given teacher should not be excessive.

[8] It was a stratified random sample selected without clustering from the Child Benefit Register.

11.3 IMPLEMENTATION AND OPERATION OF THE PILOT

Fieldwork for the school-based component was principally implemented on a phone and postal basis. This involved posting an introductory letter with an Information Leaflet and questionnaires to the principal in each school in the sample. This was followed by an intensive phone follow-up phase involving multiple repeated phone calls to the school. Any remaining non-responding schools were allocated to interviewers so that the latter could call in person to the school to encourage participation and return of the questionnaires.

11.3.1 THE PHONE-BASED PHASE

A split-sample design was used to test two slightly different ways of approaching the individual teachers whom we were requesting to complete the Teacher-on-Pupil Questionnaire. For ease of discussion, these will be referred to below as Group A and Group B. The difference between the approaches adopted with the two groups was the principal's role in the process. In Group A the names of the relevant teachers were initially collated from the school principal. The Study Team then followed up directly with the named teachers for the completion of the teacher-based questionnaires. In Group B the principal him/herself was asked to play a central role in the distribution, collection and return of the teacher-based questionnaires within the school.

The reason for this split sample design in the pilot was a concern that teachers might have been reluctant to participate in the survey if their completed questionnaires were sent back to the Study Team through the principal. The Study Team wanted to use the pilot phase to test the feasibility of the alternative contingent design, based on direct contact with the teacher. This alternative approach meant that the principal did not have access to questionnaires completed by the teachers in his/her school. Operational details of both groups are outlined below.

11.3.2 DIRECT CONTACT WITH THE TEACHERS – GROUP A

Twenty schools were included in Group A. The Study Team sent an introductory letter (Appendix A15) to the principal in this group of schools. The letter briefly summarised the objectives of this phase of the study and outlined the three types of questionnaires to be completed (viz. Principal; Teacher-on-Self and Teacher-on-Pupil). The following items were included with the introductory letter:

1. Information Leaflets for both principal and teachers (Appendix A16)
2. A list of the children in the school who were included in ***Growing Up in Ireland*** (Appendix A17) – this is the 'blue record sheet' referred to in the covering letter.
3. The Principal Questionnaire (Appendix A19)

In the covering letter the principal was told that one of the Study Team staff would phone over the subsequent few days to discuss the study and clarify what was being requested of the school. The principal was told in the letter that s/he would be asked to complete the information in the 'blue record sheet' on each child over the phone with the Study Team. It was explained in the letter that the children and their families had been interviewed in their home in the previous few weeks and that appropriate signed consent had been secured at that time.

The principal was phoned by the Study Team 2-3 days following the letter. The member of the Study Team explained the project and discussed the main issues outlined in the Principal and Teacher Information Leaflet. In the course of the phone conversation, the principal was asked to complete the 'blue record sheet' containing the list of pupils in the school. This confirmed that the listed children either (i) currently attended the school (ii) had previously attended it but not currently or (iii) had never attended the school. In addition, the sheet recorded the Study Child's class as well as the name of the child's teacher. It was explained to the principal that the relevant Teacher-on-Self and Teacher-on-Pupil Questionnaires would be sent directly to the named teachers at the school address and that the Principal Questionnaire should be completed by the principal and returned to the Study Team as soon as possible.

Once the name of the Study Child's teacher was established in the phone conversation, the Teacher-on-Self (one copy) and Teacher-on-Pupil Questionnaires (Appendices A20 and A21 respectively) were sent directly to the teacher, with an Information Leaflet and a request to complete them. A copy of the covering letter to the teacher is included in Appendix A18. All subsequent contact (by phone and personal visit, if relevant) was made directly with the teacher, not through the principal.

11.3.3 DISTRIBUTION OF TEACHER QUESTIONNAIRES THROUGH THE PRINCIPAL – GROUP B

The remaining 40 schools of the pilot were included in Group B. The Study Team sent an introductory letter (Appendix A22) to the principal involved. As was the case with the schools in Group A, this briefly summarised the objectives of this phase of the study and outlined the different types of questionnaires (Principal; Teacher-on-Self and Teacher-on-Pupil). In addition, the letter included the following items:

1. Information Leaflet for both principal and teachers (Appendix A23)
2. A list of the children in the school who were included in ***Growing Up in Ireland*** (Appendix A24) – this is the 'blue record sheet' referred to in the covering letter.
3. The Principal Questionnaire (Appendix A25)
4. The Teacher-on-Self Questionnaire (Appendix A26)
5. The Teacher-on-Pupil Questionnaire (Appendix A27)

As with those in Group A, the principals in Group B were told in the letter (and accompanying Information Leaflet) that one of the Study Team staff would phone in the following few days to discuss and explain this phase of the project and would ask him/her to complete the 'blue record sheet' on the phone.

At that point in the phone conversation the principal was asked: (a) to complete the Principal Questionnaire; (b) to distribute a copy of the Principal and Teacher Information Leaflet along with a single copy of the Teacher-on-Self Questionnaire to each teacher listed by the principal on the 'blue sheet' and (c) to distribute a copy of the Teacher-on-Pupil Questionnaire in respect of each child being taught by the teacher. The principal was requested to ask each teacher to complete his/her Teacher-on-Self and Teacher-on-Pupil Questionnaires, to seal them in an envelope provided by the

Study Team and to return the sealed envelopes to the principal, to maintain confidentiality for the teachers and hopefully improve response rates.

The principal was requested to collect all questionnaires (in their sealed envelopes) from the relevant teachers and return them to the Study Team, along with the completed Principal Questionnaire, in a freepost envelope provided by the Study Team.

As noted, the difference between the approach adopted with Groups A and B was the principal's role in the process. The pilot phase illustrated that teachers did not appear to be reluctant to return their completed questionnaires through the principal; it is proposed to adopt this approach (i.e. that used with Group B above) in the main study.

In the initial phone conversations with the principal, an attempt was made to complete not only the 'blue record sheet' containing the details on the Study Children who attended the school but also to complete the Principal Questionnaire over the phone. Because principals tended to be very busy, these attempts at completing the questionnaires over the phone proved to be generally unsuccessful. Given the clear ongoing nature of the subsequent contact with the school, all principals who were requested to complete the questionnaire on the phone said it would be easier to do so in their own time and return to the Study Team in the post.

11.3.4 THE PERSONAL INTERVIEW PHASE

Following six weeks of intensive phone follow-up with the schools, the then non-respondents were allocated to interviewers in January 2013, with a view to the interviewers calling in person to the schools to encourage completion of the questionnaires. This phase worked well and assisted in maintaining a high response rate.

11.4 RESPONSE RATES

Table 11.1 outlines summary response rates in the pilot phase, at the school level, as well as by the different types of questionnaires completed. Figures are broken down by Groups A and B, as explained above.

Table 11.1: Response rates broken down by Principal, Teacher-on-Self and Teacher-on-Pupil in pilot, five-year cohort

	Group A Direct to Teachers			Group B Distributed through Principal			Total		
	Target	Completed	Response Rate (%)	Target	Completed	Response Rate (%)	Target	Completed	Response Rate (%)
School Level	10	9[1]	90%	50	47[1]	94%	60	56	93%
Principal Questionnaire	10	8	80%	50	47	94%	60	55	92%
Teacher-on-Self Questionnaire	13	11	85%	57	54	95%	70	65	93%
Teacher-on-Pupil Questionnaire	20	14	70%	62	58	94%	82	72	88%

[1] Two of these four non-participating schools were refusals; one was a 'soft refusal' (not definitive); in the fourth only the 'blue sheet' was completed (no questionnaires were returned, despite repeated phone calls and visits to the school).

Overall, 56 (93 per cent) of the 60 sampled schools participated in this phase of the project. A total of 52 of these schools participated in full, completing and returning all required questionnaires from principal and teachers. In the remaining four schools, some combination of Principal, Teacher-on-Self or Teacher-on-Pupil questionnaires were not returned.

At an aggregate level (across both Groups A and B), 92 per cent of principals completed their questionnaires, 93 per cent of the Teacher-on-Self Questionnaires were completed, and 88 per cent of the Teacher-on-Pupil Questionnaires. Response was higher for Group B, based on internal distribution in the school through the single point of contact with the principal. A total of 94 per cent of Teacher-on-Pupil Questionnaires were completed using this approach.

11.5 ENDORSEMENT FROM TEACHER'S UNION AND PRINCIPAL'S REPRESENTATIVE BODY

11.5.1 THE INTO

During the pilot phase, the Study Team met with the Irish National Teachers Organisation (INTO) with a view to securing its endorsement of the project. A similar approach was used when the Child Cohort sample was being generated through the schools when the children were nine years of age.

11.5.2 THE IRISH PRIMARY PRINCIPALS' NETWORK

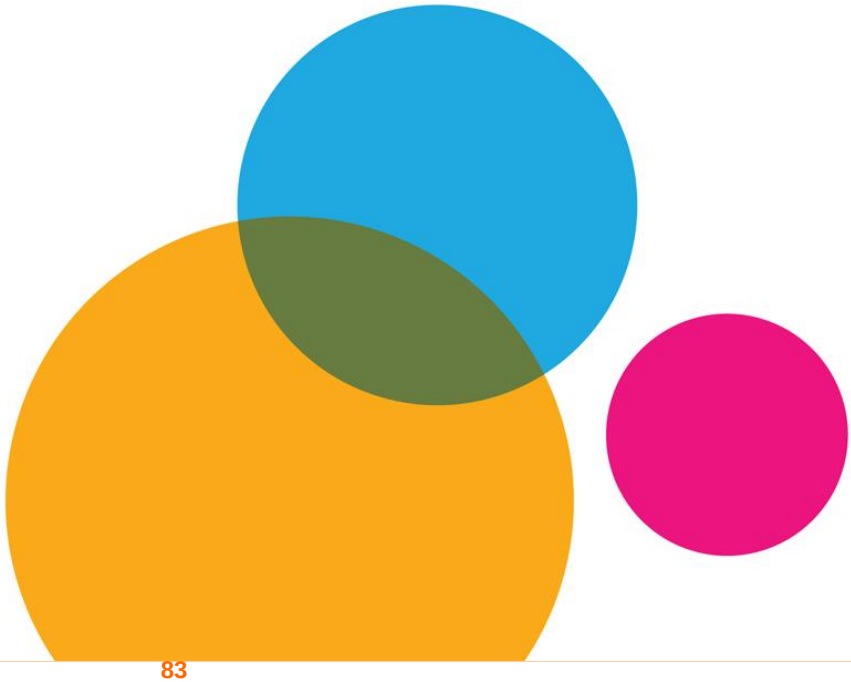
The Study Team also secured the backing and endorsement of the Irish Primary Principals' Network (IPPN) for this phase of the study. As with the INTO, the IPPN's support was also secured in the nine-year phase of the Child Cohort.

Recommendations for main phase at five years

- On the basis of the pilot experience, it was decided to approach the schools for the main study from the end of September 2013. The initial approach was to be via post and phone by interviewers, followed by personal visits to the schools to secure completion of outstanding questionnaires. It was decided that distribution and collection of teacher-based questionnaires in the schools would be through the principal (the Group B approach outlined above).

Chapter 12

THE PRINCIPAL'S QUESTIONNAIRE



12. THE PRINCIPAL'S QUESTIONNAIRE

12.1 THE QUESTIONNAIRE

Both the principal and the Study Child's teacher were asked to provide information about the school, their own experience and attitudes, and the Study Child him/herself. The principal was asked to complete one questionnaire recording details about the school. In addition to capturing basic information on the school such as the number of pupils and number of staff, the questionnaire also asked for details on a variety of important school-level characteristics such as the adequacy of facilities and resources, the prevailing value system and ethos of the school, and various aspects of school 'climate'. The following were the questions used in the pilot:

Q1 – Q3:	Personal information about the principal such as age, gender, the number of years he/she has been principal at their current school, and the number of years as principal in other primary schools
Q4 – Q8:	School size and staffing resources
Q9 – Q12:	Classroom provision – the number of permanent and temporary classrooms in the school, the number of classes across all year groups, and the number of children the school was designed to accommodate
Q13:	Year in which school was built and also most recently refurbished
Q14 – Q15:	Adequacy of school facilities and resources
Q16:	Free school meal provision – a breakfast club or free meals at lunchtime
Q17 – Q20:	Computer resources in the school – number of computers available in the school, the number of these that can be used by the pupils, and whether there is a dedicated computer room in the school
Q21:	School-community relationships – whether the school buildings and facilities are open to the local community outside of school hours
Q22 – Q23:	Ethos of the school – the importance of different activities (e.g. Irish language and culture, sports) to the prevailing ethos of the school
Q24:	Classroom composition – number of children who are foreign nationals or are from families in the Traveller Community, as well as the number of children with sensory, language and learning difficulties
Q25 – Q26:	School attendance levels
Q27:	School catchment area
Q28 – Q29:	Emotional/behavioural problems and school supports – the level of interpersonal supports in the school for children with emotional/behavioural problems and the

	extent to which the school adopts a whole-school approach; details on the proportion of students who have such literacy, numeracy or behavioural problems as to adversely affect their educational development
Q30 – Q33:	Admission and streaming criteria
Q34 – Q35:	Engagement with parents
Q36:	Principal's perception of numerous aspects of pupil characteristics and behaviour.
Q37 – Q39:	Disciplinary policy in the school – the frequency with which various forms of discipline are applied in the school. Question 39 asks whether the school has a formal policy on discipline and the extent to which teachers, parents and pupils were involved in developing the policy.
Q40:	Bullying in the school – to what extent bullying is a problem in the school and whether the school has an explicit anti-bullying policy, or a written policy on bullying
Q41 – Q45:	Details on the scale of day-to-day problems in the school and how the general environment in the school compares with other primary schools in the country; principal's perception of the general school climate, and the level of satisfaction which the principal derives from his/her job (Q45)

12.2 FINDINGS FROM THE PRINCIPAL'S QUESTIONNAIRE

Of 60 questionnaires sent out to principals, 56 were completed; 37 by female principals and 19 by male principals. Many of the questions asked were at the school level to give a broader picture of the child's learning environment.

Question 14 on the Principal Questionnaire asked about the school resources in a large number of areas, such as number of teachers; arts, sports and music facilities; administrative support, special needs provision, etc. There was good variance in the responses.

While the number of pupils with different needs such as physical/sensory, learning/intellectual, literacy, numeracy and emotional/behavioural difficulties, as well as levels of absenteeism, were relatively low, these would be regarded as important groups of individuals to identify at an early stage.

All schools in the pilot recorded having a written code of behaviour (discipline policy) except one ('didn't know/missing'). Findings showed that, where pupils were involved to a large extent in the policy development, student-teacher relationships were more positive (M = 31.6) compared to those who had some input (M=30.3) or no input at all (M=29.7).

Questions 39 and 40 indicated that 43 principals saw bullying as a minor problem, and nine saw it as no problem at all.

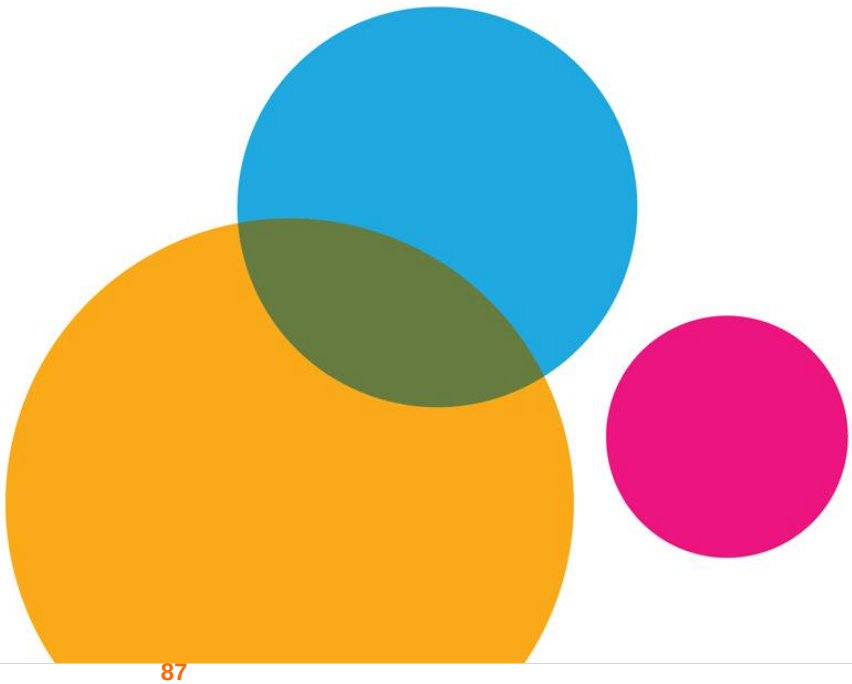
Recommendations for main phase at five years

Only a few minor changes were recommended for the main study. These were as follows:

- Question 35, about parental involvement in curricular activities, was dropped as information was of little value, and it was accepted by the Study Team that parents wouldn't generally be involved in curricular activities anyway.
- Question 37 (on whether or not school had an agreed code of behaviour or disciplinary policy) was dropped as all schools recorded that they had an agreed code – and they are indeed required to have one.

Chapter 13

THE TEACHER-ON-SELF QUESTIONNAIRE



13. THE TEACHER-ON-SELF QUESTIONNAIRE

13.1 THE QUESTIONNAIRE

The purpose of this questionnaire was to record background details on the Study Child's teacher, such as age, gender, qualifications, teaching methods adopted in class, etc. In addition, the Teacher-on-Self Questionnaire recorded information at classroom level on topics such as curriculum, teaching methods and class composition.

Q1 – Q5: Background characteristics of the teacher – including gender, age, qualifications and continuing professional development

Q6a – Q10: Basic characteristics of the class – including size, year group and number of children with special needs

Q11: Subjects undertaken and the time spent on each subject in a week

Q12 – Q15b: Teaching methods – including aspects of interactive and passive teaching techniques such as play

Q16: Teacher control and input to decision-making in the classroom

Q17 – Q18: Teacher's perception of what school readiness involves (in general) for pupils and his/her perception of what is important in terms of preparing a child for school

Q19: Teacher's perception of school – including the teacher's perception of how happy the school environment is for pupils and for the teacher himself/herself

Q20: Teacher's satisfaction with the amount of information s/he receives on the pupils coming into their class each year

Q21 – Q22: Level of parental involvement in the school and their interest in the child's education

Q23 – Q24: Teacher's perception of the general environment in the school and (a) how stressed and (b) how satisfied teachers are in the school

13.2 FINDINGS FROM THE TEACHER-ON-SELF QUESTIONNAIRE

A total of 65 teachers completed the Teacher-on-Self Questionnaire: 61 females and four males. Notable findings from the questionnaires are reported in this section.

The teacher was asked a series of questions about themselves, to add context to the child's learning environment. While the principal was asked questions at a broader level, the teacher was asked about experiences at the class level, which may have a closer bearing on the Study Child.

For example, Question 10 asked about numbers of children in the class with long-term difficulties, and comparison was made between teachers who had children with long-term difficulties in their classroom and those who didn't. Teachers of children with emotional and behavioural problems were more likely to describe themselves as 'very or fairly stressed' (26 teachers) than those who did not (five teachers), as were teachers of children with a learning/intellectual disability (24 compared to seven).

Those who taught children with emotional and behavioural difficulties were also much more likely than those who didn't to have engaged in continuing professional development (CPD) in the last year (38 compared to 18), as was the case of those who taught children with a learning/intellectual disability (37 compared to 19), although there were only seven teachers who hadn't done any CPD. Teachers of children with *any* long-term difficulties were also considerably more likely to have the support of Special Needs Assistants.

Although the numbers were small, Study Children whose teachers had done some CPD in the last year scored higher in all areas of competency, i.e. Disposition, Language, Sounds, Reading and Numeracy (again, it should be noted that only seven teachers had not taken part in CPD).

Question 13 presented a number of statements about teaching style. These questions showed good variance and had been used to good effect in previous waves of ***Growing Up in Ireland***. Subsequent questions asked about children's use of electronic devices in the Study Child's class, use of an interactive whiteboard, and use of the Internet.

Teachers were also asked about their sense of control in different areas of teaching. The output showed that they had differing levels of control in different areas, from most having 'a great deal of control' in deciding what teaching techniques to use (67.2 per cent), to having only 'some' or 'no control' over selecting the year group they teach (64.5 per cent).

Questions 17 and 18 contained statements or characteristics believed to be related to a child's preparedness for primary school. They highlighted an interesting mix of different attitude and belief systems with regard to this issue. For example, while all teachers believed that it was at least 'somewhat important' that a child could manage their own personal care, 64 per cent thought it wasn't important to know most of the letters of the alphabet.

Teachers had mixed levels of satisfaction with information received on pupils coming into their class such as attendance at preschool, family circumstances, special needs, etc. This is a policy issue that may warrant further investigation.

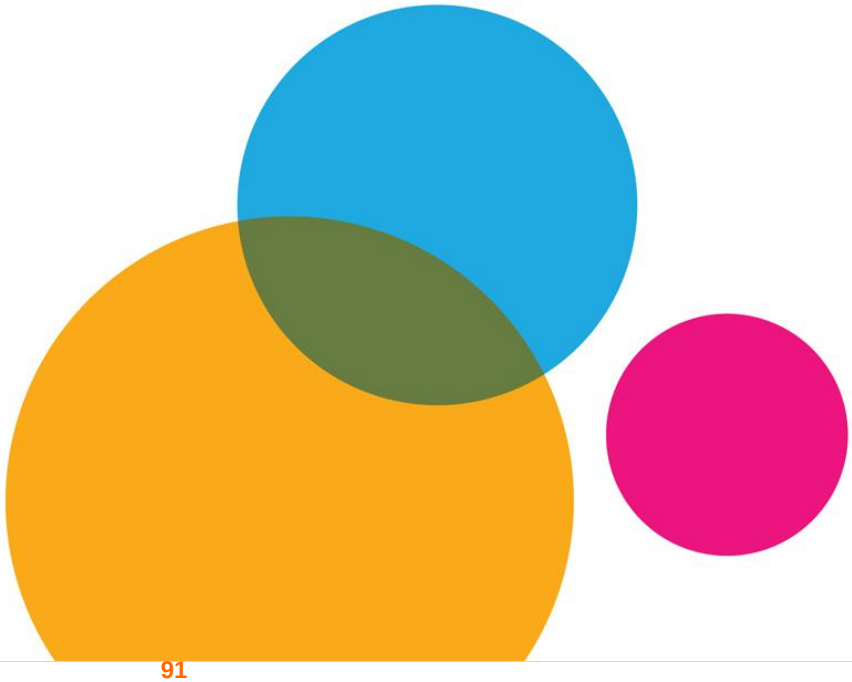
As with the principal, teachers were asked about the school environment in comparison to other schools and also their own levels of stress and satisfaction with their job. Notably, 50 per cent of teachers were 'fairly' or 'very stressed' compared to 64 per cent of principals. However, principals were more likely to report being 'very satisfied' with their job (70 per cent) than teachers (60 per cent).

Recommendations for main phase at five years

- One of the main recommendations arising from the pilot was to shorten the questionnaire, and specifically to cut items from questions 17 and 19 on the teacher's perceptions of the child's school readiness and the school environment. The items proposed to be cut from Question 17 were: a, d, g, k and n. The items to be cut from Question 19 were: a, e and f.

Chapter 14

THE TEACHER-ON-PUPIL QUESTIONNAIRE



14. THE TEACHER-ON PUPIL QUESTIONNAIRE

14.1 THE QUESTIONNAIRE

In addition to the Principal and Teacher-on-Self questionnaires, the school-based phase of fieldwork contained a Teacher-on-Pupil questionnaire. Each teacher was asked to complete a questionnaire in respect of each Study Child in his/her class, provided consent had been received from the parent or guardian in the home-based component of the study. The Teacher-on-Child Questionnaire focused on the individual child, including his/her behaviour and the teacher's assessment of school preparedness, engagement and ability.

Q1 – Q4: Characteristics of the Study Child – including gender, date of birth, school grade/year (Junior or Senior Infants) and how long the teacher has known the child

Q5: Attending school in an appropriate state – including the frequency of the Study Child arriving at school in an appropriate state for school, being adequately dressed for weather conditions, being hungry, lacking cleanliness, etc

Q6: School readiness – this question is made up of five sub-scales, each containing nine items. The sub-scales record details on the child's:

- disposition and attitudes
- language for communications and thinking
- ability to link sounds and letters
- reading ability
- numeracy and ability with numbers

Q7: Details on the child's abilities in a number of areas such as speaking and listening, reading, writing, science, maths and numeracy, physical education and art.

Q8: Details on within-class grouping on the basis of reading/literacy and maths. If relevant, it records which group the child is placed in within the class.

Q9: This is the Strengths and Difficulties Questionnaire (SDQ) – completed here by the teacher to measure the Study Child's behaviours in the classroom.

Q10: This question records details on parental engagement with the school and teacher.

Q11: This is the Pianta Student-Teacher Relationship Scale. It records details on the teacher-child relationship.

Q12 – Q14: Conditions that limit activities – whether or not the Study Child has any disability (physical, sensory or learning) problem or other characteristic that limits his/her participation in school, and the associated supports which he/she receives from the school

14.2 FINDINGS FROM THE TEACHER-ON-PUPIL QUESTIONNAIRE

In all, 72 teachers completed the Teacher-on-Pupil Questionnaire. Fifty-nine of the teachers had been teaching the respective child for the current school year, while 12 had been teaching them for two school years, i.e. the current part of the school year and the previous school year. This meant that some teachers had relatively little time to get to know the children. These questionnaires focused specifically on the teacher's knowledge and experience of the Study Child. Notable results as well as those from the scaled items are discussed here.

Teachers were asked (Question 5) about how often the Study Child had arrived for school late, unclean, hungry, tired, etc. Although there was not a great deal of variance in the responses on these items, even the small number of affirmative answers gives rise to concern, given the age of the children.

14.2.1 CHILD'S ACHIEVEMENT

These questions were used in the Millennium Cohort Study, Age 5 survey. They were based on the Foundation Stage Profile in England (called the Developed Administration Teacher Survey in Wales, Scotland and Northern Ireland), which is a record of the child's achievement as reported by their teacher. The full form of the questionnaire asks about the child's ability in six areas of learning, three of which are further broken down into sub-groups, making a total of 13 assessment scales. Each assessment scale has nine questions, each of which describes a competency. The final question in each scale describes a child who has achieved all the competencies from 1–8 on that scale, has developed further both in breadth and depth, and is working consistently beyond the previous competencies and means that s/he is significantly above what is expected at this stage (see Hansen & Joshi, 2008).

The ***Growing Up in Ireland*** pilot used five of the 13 assessment scales, measuring the child's Disposition and attitudes; Language for communications and thinking; Ability to link sounds and letters; Reading ability; and Ability with numbers.

Table 14.1: Descriptive statistics for the measures of competency

	N	Minimum	Maximum	Mean	Std. deviation
Disposition	67	2.00	9.00	7.72	2.14
Language	65	1.00	9.00	7.55	2.55
Sounds	68	.00	9.00	7.79	2.13
Reading	67	.00	9.00	7.52	1.93
Numbers	70	.00	9.00	7.74	1.72

Table 14.1 summarises the statistics for each of the assessment sub-scales. Scores range from 0 to 9; higher scores indicate better competency in that area. Scores were somewhat skewed towards the higher end of all sub-scales, indicating a generally high perception of competence among the five-year-olds. Item 9 was achieved by a proportion of children in all sub-scales. In terms of Disposition, 79 per cent achieved this score; for Language it was 76 per cent; for Sounds 63 per cent; for Reading, 56 per cent; and for Numbers, 34 per cent. It was noted from the completed questionnaires that in a

small number of cases affirmative answers were given by teachers who stated that they had not actually seen the child do the particular action, but believed that they could do it. To this end instructions were modified for the main study to make it clearer that the competency was to be marked as 'achieved' only if the teacher had actually witnessed it.

Correlations were run for the Primary Caregiver report of school readiness. The results showed that this measure was most likely to be correlated with the child's achievement in Language skills ($r = .35$, $p<0.01$), Reading ($r = 0.40$, $p<0.01$), and Numbers ($r = 0.35$, $p<0.01$).

Further validity was provided for the assessment sub-scales when run by mother's education, chronic illness (of the child), speech impairment (as reported by the teacher), type of preschool, and whether or not free preschool hours were topped up. For example, teacher report of speech impairment was significantly associated with language skills ($F = 8.37$, $p<0.01$) and type of preschool was positively associated with reading skills ($F = 3.04$, $p<0.05$), with Montessoris coming out on top. However, given some of the very small cell numbers (there was only one Montessori), these numbers must be treated with caution.

The teacher's perception of the Study Child's achievement levels in relation to other children of his/her age (Question 8) also showed that teachers were generally more likely to rate the child as average compared to other children. Some of these items also correlated with parental perception of school readiness, such as speaking and listening in English ($r = -0.41$, $p<0.05$), speaking and listening in Irish ($r = -0.41$, $p<0.01$), and reading in English ($r = -0.34$, $p<0.01$).

14.2.2 THE STRENGTHS AND DIFFICULTIES QUESTIONNAIRE (SDQ)

As for the child's Primary Caregiver, a Strengths and Difficulties Questionnaire (SDQ) was also completed by the teacher to measure the Study Child's emotional and behavioural symptomatology in the classroom.

The possible range on the sub-scales is 0-10; this was achieved on two of the sub-scales, Hyperactivity and Prosocial behaviour. A maximum score of six was achieved on the other sub-scales. The Total Difficulties score (based on adding the scores on the four deficit-oriented sub-scales) achieved a range of 0-24, with a mean score of 5.3 out of a possible 40. Reliability for the sub-scales was acceptable: Emotionality ($\alpha = 0.65$), Conduct ($\alpha = 0.70$), Hyperactivity ($\alpha = 0.87$), Peer problems ($\alpha = 0.60$), Prosocial behaviour ($\alpha = 0.84$), and Total Difficulties ($\alpha = 0.54$).

Validity for the SDQ was supported by a negative correlation with the parent report of School Readiness ($r=-0.44$, $p<0.01$). Findings also showed that the SDQ Total Difficulties score correlated with teacher perceptions of the child's achieved competency: Disposition ($r = -0.63$, $p<0.01$), Language ($r = -0.68$, $p<0.01$), Sounds ($r = -0.36$, $p<0.01$), Reading ($r = -0.52$, $p<0.01$), and Numbers ($r = -0.32$, $p<0.01$). There were correlations with some of the SDQ sub-scales also, particularly notable for Hyperactivity, which had the following correlations: Disposition ($r = -0.66$, $p<0.01$), Language ($r = -0.68$, $p<0.01$), Sounds ($r = -0.48$, $p<0.01$), Reading ($r = -0.53$, $p<0.01$), and Numbers ($r = -0.34$, $p<0.01$). The teacher report of Total Difficulties on the SDQ did not correlate with the parent report ($r = 0.15$, $p = ns$).

14.2.3 STUDENT-TEACHER RELATIONSHIP SCALE (STRS)

Relationships between teachers and children were assessed using the Student-Teacher Relationship Scale (STRS). The STRS (Pianta, 2001) is a self-report measure of teacher's perceived relationship with individual students. The Conflict and Closeness sub-scales of the STRS were used. This scale was similar to the parent-child relationship scale (Pianta, 1997) that was completed by both Primary and Secondary Caregivers in the household interview.

Scores on items ranged from 1-5. This range was achieved for all items except for item 11: 'Dealing with this child drains my energy', which achieved a range of 1-4. Overall, scores on both sub-scales tended to be skewed towards higher levels of Closeness (mean score 33.8 out of 35), and lower levels of Conflict (mean score 14.3 out of 40).

Reliability for the sub-scales was acceptable, at 0.88 for the Conflict sub-scale and 0.84 for the Closeness sub-scale.

The validity of the STRS scores was also supported by predicted correlations with emotional and behavioural outcomes as measured by the Strengths and Difficulties Questionnaire (SDQ) as well as the parent measure of the parent-child relationship. Findings were as expected, indicating a positive association between Conflict in the student-teacher relationship and the teacher-rated Total Difficulties score on the SDQ ($r = 0.77$, $p<0.01$) and a negative relationship between Closeness and the Total Difficulties score ($r = -0.48$, $p<0.01$).

In terms of correlating with the parent report on the relationship with their child, there was a significant, if moderate, association. Conflict with the Primary Caregiver had a correlation of 0.36 ($p<0.01$) with student-teacher Conflict, while parent-child Closeness correlated with student-teacher Closeness ($r = 0.31$, $p<0.05$). Parent-reported school readiness was also negatively correlated with student-teacher Conflict ($r = -0.36$, $p<0.01$) and positively associated with student-teacher Closeness ($r = 0.26$, $p<0.05$).

Recommendations for main phase at five years

- The Teacher-on-Pupil Questionnaire worked very well in the pilot study. As mentioned above, the only recommendation for the main study was to give clearer instructions around reporting the child's achievement at Question 7 so that answers would be based on the child's actual/current achievement and not on teacher beliefs of what the child could do.

Chapter 15

SUMMARY

15. SUMMARY

15.1 IMPLEMENTATION

The pilot for the school phase of the Infant Cohort at five years worked very well. Just over 95 per cent of families provided signed consent in the home-based phase to approach the Study Child's teacher. A total of 126 schools were identified from the Primary Caregiver interview. A sample of 60 of these was selected for follow-up at the school level. Implementation was on a mixed mode basis, with a phone/postal component as well as a personal visit to the school. Two approaches to contacting the teachers were adopted. One of these involved the school principal distributing and collecting the questionnaires internally within the school. The second involved the Study Team directly contacting the teachers. Response rates at the school level and also in respect of each of the three types of questionnaires (Principal, Teacher-on-Self and Teacher-on-Pupil) were high. The response rates on the two teacher questionnaires were higher for the approach based on the principal distributing and collecting their questionnaires.

For the main phase of the study with the five-year-olds, it was decided to use an approach initially based on postal contact, with intensive phone follow-up by the interviewers. Face-to-face visits would then be made to non-respondent schools or schools in which there was a high level of unit non-response for some questionnaires. The individual teachers in the school will be contacted through the principal.

15.2 QUESTIONNAIRES AND CONTENT

The three school-based questionnaires (Principal, Teacher-on-Self and Teacher-on-Pupil) all worked well and provided good-quality information. Each provided important contextual and other information which will assist in analysis and modelling of child outcomes. The very minor changes recommended by the Study Team for the main phase have been outlined in the report and incorporated into the instruments and related documents in Appendix B of this submission.

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