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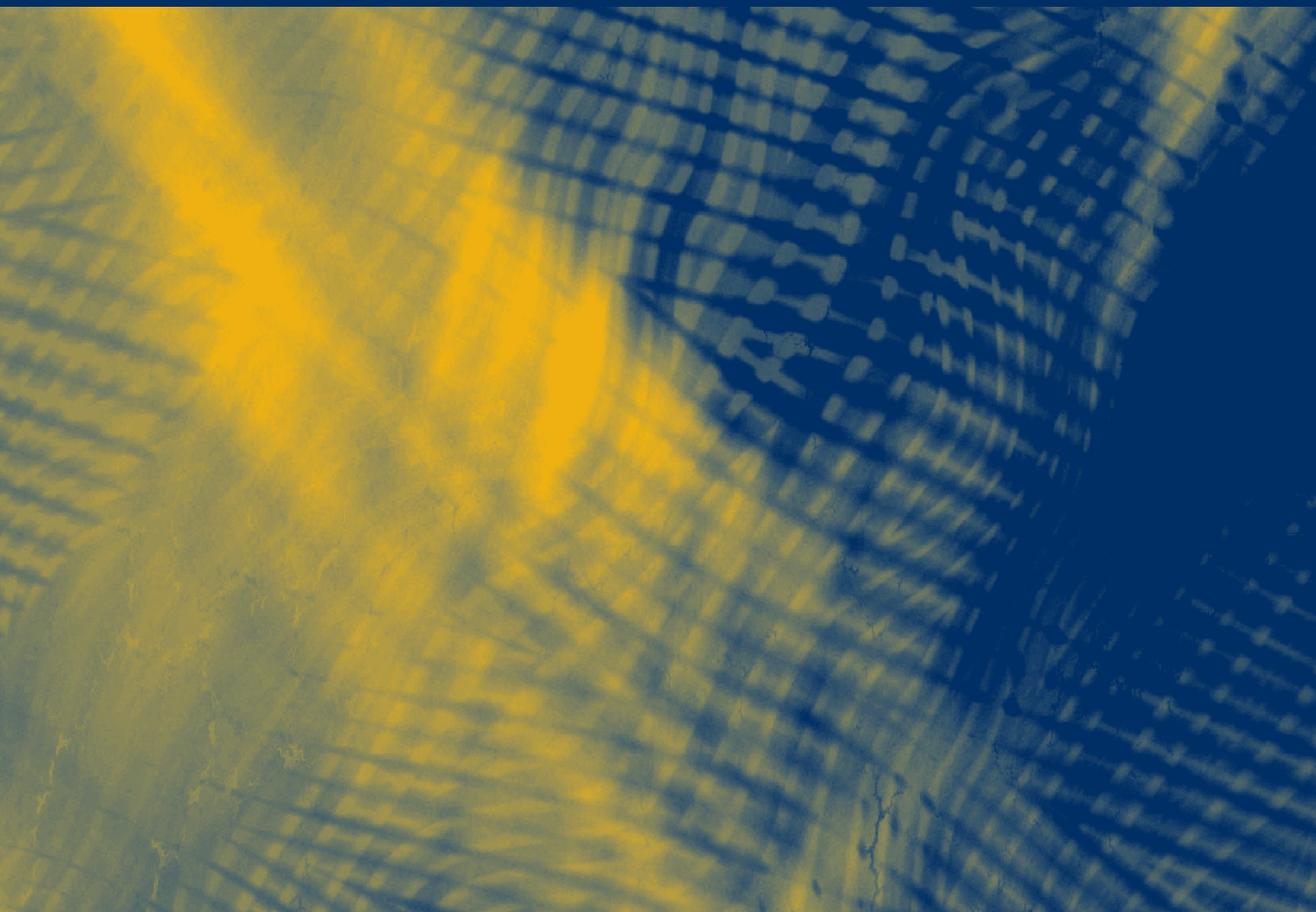National Council for Curriculum and Assessment

Primary Curriculum Review, Phase 1
Final Report with recommendations

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MAY 2005

NCCA

An Chomhairle Náisiúnta Curaclaim agus Measúnachta
National Council for Curriculum and Assessment

Acknowledgements

The NCCA is very grateful to the many children, parents, principals and teachers who participated in this Primary Curriculum Review.

We thank the 719 teachers who completed an 18 page questionnaire on their curriculum experiences, and the 6 school principals who opened their professional lives to us during the 2003/2004 school year. Our school-based research enabled us to ensure that this review would be informed by the different experiences of principals, teachers, parents and children with the Primary School Curriculum.

Teachers and principals gave generously of their time, describing their experiences with the Primary School Curriculum while simultaneously reporting lack of time as one of their greatest challenges. We also wish to say a big thank you to the children from these schools who confidently took part in group discussions and shared their unique perspective on what and how they learn at school.

Although his study has ended, the NCCA has forged a link with the 6 schools, which continues through informal dialogue and participation in the life of the schools.

Contents

List of Figures

List of Tables

Section 3: Visual Arts Curriculum

Section 4: Mathematics Curriculum

EXECUTIVE

SUMMARY

The National Council for Curriculum and Assessment (NCCA) initiated a review of the Primary School Curriculum in September 2003. The review focused on teachers' and children's experiences with the English Curriculum, the Visual Arts Curriculum and the Mathematics Curriculum. Findings in this report are based on data from 719 completed teacher questionnaires (teacher template study) and interviews with children, parents teachers and principals in six schools (school case study), gathered from September 2003 to September 2004.

Findings and recommendations are provided in this Executive Summary. More detailed findings and discussions presented in sections 2, 3, 4 and 5 of this report.

SUMMARY OF FINDINGS

The following points summarise key findings for the English Curriculum in Section 2 of this report, the Visual Arts Curriculum in Section 3, the Mathematics Curriculum in Section 4 and general findings on the Primary School Curriculum in Section 5.

English Curriculum

Teachers reported difficulty in understanding the English strands and using them to plan for and to teach the English Curriculum. They contrasted the difficulty with the English strands, with the ease of use of strands in visual arts and mathematics.

Oral language was the strand unit which received the greatest level of support from teachers across all four strands, followed by reading, and then writing.

Teacher observation was reported as the most frequently-used assessment tool in the English Curriculum, followed by teacher-

designed tasks and tests, and work samples, portfolios and projects. Nearly all (99.5%) teachers reported using teacher observation as an assessment tool *at least a few times a week.*

Teachers identified three challenges for assessment in the English Curriculum namely, time, appropriateness of assessment tools, and catering for the range of children's abilities in English.

Whole class teaching was the organisational setting which teachers most frequently reported using to support the English Curriculum, followed closely by individual work. Teachers reported limited use of group work and pair work with children in their classes.

Three-quarters (75%) of teachers reported using ICT to support the English Curriculum. ICT use in English was generally limited to typing up or transcribing children's written work. Little use of ICT for research purposes or for creative uses was reported by teachers.

Teachers reported developing children's literacy (reading and to a lesser extent, writing) as their greatest success with the English Curriculum, followed by increasing children's confidence in English and encouraging oral language.

The greatest challenge to teachers' use of the English Curriculum was reported as time, followed by curriculum organisation and developing children's oral language

In their ongoing implementation of the English Curriculum, teachers prioritised improving children's writing skills, followed by teaching and learning oral language, and making progress with children's reading.

Visual Arts Curriculum

- Paint and colour was the **strand** which teachers identified as the most useful in the Visual Arts Curriculum, followed by drawing, another two-dimensional strand.

- Teachers reported that the **structure and layout** of the Visual Arts Curriculum according to the six strands and two strand units facilitated their planning and teaching in visual arts.

- Teacher observation was reported as the most frequently used **assessment tool** in visual arts, followed by work samples, portfolios and projects, and teacher-designed tasks and curriculum profiles. Three-quarters (76%) of teachers reported using teacher observation as an assessment tool *at least a few times a week*.

- Teachers identified three **challenges for assessment** in the Visual Arts Curriculum namely, time, the appropriateness of assessment in visual arts, and teachers' knowledge of visual arts assessment.

- Individual work was the **organisational setting** which teachers reported using most frequently in visual arts, followed closely by whole class teaching. Limited use of group work and pair work was reported by teachers.

- Just over one-third (34.4%) of teachers reported using **ICT** in the Visual Arts Curriculum. ICT use in visual arts focused on using the Internet to look at art and artists work and using software to design and printing cards and to paint and colour.

- Providing a breadth of visual arts experience for children (using all 6 strands) was the greatest **success** reported by teachers, followed by children's enjoyment of visual arts and children's self-expression through visual arts.

- Class size and classroom space were reported as teachers' greatest

challenges in implementing the Visual Arts Curriculum, followed by insufficient time for visual arts.

- In their ongoing implementation of the Visual Arts Curriculum, teachers prioritised the looking and responding to visual arts strand unit, followed by the fabric and fibre, and construction strands.

Mathematics Curriculum

Number was the mathematics strand which received the greatest level of approval from teachers across all class levels, with early mathematical activities (the additional strand for junior infants) being rated very useful. Data was the strand which teachers reported as being the least useful across most class levels, with shape and space in the case of first and second classes.

Within the number strand, the operations and place value strand units were considered to be the most useful, with counting being the most useful strand unit in the early mathematical activities strand. In the data strand, the representing and interpreting strand unit was identified as being the least useful in the case of junior infants to second class, while chance was reported as the least useful from third to sixth classes.

Teacher observation was reported as the most frequently used assessment tool in the Mathematics Curriculum, followed closely by teacher-designed tasks and tests and work samples, portfolios and projects. Almost all (99.1%) of teachers reported using teacher observation as an assessment tool *at least a few times a week.*

Teachers identified three challenges for assessment in the Mathematics Curriculum, namely, time, appropriateness of

assessment tools, and catering for the range of children's ability in mathematics.

Whole class teaching was the organisational setting which teachers reported most frequently using to support the Mathematics Curriculum, followed closely by individual work. Limited use of pair work or group work was reported by teachers.

Some 58% of teachers reported using ICT to support the Mathematics Curriculum. ICT use in the Mathematics Curriculum was limited to using content-based software programmes. There was little reported use of the Internet in maths.

Teachers reported doing practical work (hands-on work) as their greatest success with the Mathematics Curriculum, followed by increased enjoyment of maths for children, followed by children's success in specific content areas of the curriculum. This mirrored many of the findings in relation to how and what teachers considered the impacts of the Mathematics Curriculum to be on children's learning,

The greatest challenge to teachers' use of the Mathematics Curriculum was reported as catering for the range of children's abilities, followed by implementing specific curriculum content areas, and accessing resources. In exploring the challenge presented by the range of children's abilities in mathematics, teachers drew particular attention to time as a resource.

In their ongoing implementation of the Mathematics Curriculum, teachers prioritised focusing more on specific curriculum content, increasing their use of practical work and giving more attention to the use of mathematical language.

SUMMARY OF RECOMMENDATIONS

Recommendations arising from the findings presented in Sections 2, 3, 4 and 5 of this report are outlined below.

English Curriculum

The organisational framework (strands and strand units) for the English Curriculum should be revised to ensure that the English Curriculum is presented in a manner which is accessible to teachers and which enables them to plan for, and to support children's learning in the primary school.

Further support for implementing the writing strand unit may be necessary to enable teachers to implement an effective programme on the writing process in their classrooms.

Detailed direction and guidance should be provided for teachers concerning the teaching, learning and assessment of spelling, phonics and grammar.

Visual Arts Curriculum

Further support and ideas for using the 3D visual arts strands (clay, construction, fabric and fibre) would support teachers in continuing to implement the full visual arts curriculum.

There should be a renewed focus on developing the child's ability to look at and respond to art in implementing the Visual Arts Curriculum. Greater support should be provided for teachers in implementing this strand unit.

Mathematics Curriculum

- Further investigation of teachers' needs in implementing the data strand would enable the NCCA to develop guidance to support teachers in implementing this aspect of the Mathematics Curriculum.

ADDITIONAL FINDINGS ON THE PRIMARY SCHOOL CURRICULUM

- More detailed advice and support should be provided for teachers regarding the use of assessment to support teaching and learning. Exemplification of student work for each level of the curriculum (combination of two classes), across all subjects should be made available to support teachers' classroom assessments. Such examples of student work should also be accessible to parents.

- Parents and schools should receive greater support on how to involve parents/guardians in supporting their children's learning.

- There should be a renewed focus on developing the child's higher order thinking and problem solving skills in the Primary School Curriculum. Greater consideration should be given to the use of self-directed learning and to project work.

- The integrated nature of the Primary School Curriculum should be exemplified for teachers to a much greater extent than it currently is in the curriculum documents. This should help alleviate the time pressures experienced by teachers and should also support the development of children's English language skills throughout the day, in all curriculum subjects, rather than in a discrete manner through English alone.

- Greater direction and guidance should be provided for teachers to enable them to extend their repertoire of teaching approaches and methods to include greater use of collaborative learning including group work and pair work.

- Techniques for differentiating content and managing multi-grade classes should be provided for teachers to enable them to cater for the range of learning needs and abilities represented by individual children.

- The potential of ICT to support the aims and objectives of the Primary School Curriculum should be further exemplified for teachers, to support the development of children's concepts and skills in all subjects.

S ECTION 1:

I NTRODUCTION

INTRODUCTION

The Primary School Curriculum was launched in 1999. One correspondent described the launch in Dublin Castle as *euphoric* in her Irish Times article, 'Primary Curriculum: Time for a change'. *Hundreds of educators and representatives of the social partners (including parents' organisations), who had been involved in various ways for a decade or more in the curriculum's development, were out in force to cheer* (Healy, 1999).

The Primary School Curriculum has been described as *evolutionary rather than revolutionary* for two reasons; it was founded on its predecessor, Curaclam na Bunscoile (1971), and it was developed through widespread engagement with the partners in education. While the Inspectorate of the Department of Education and Science (DES) were responsible for developing the 1971 curriculum, the development of the revised primary curriculum became the responsibility of the National Council for Curriculum and Assessment (NCCA), whose function it is to advise the Minister for Education and Science on curriculum and assessment for early childhood, primary and post-primary education. Partnership is a cornerstone of the NCCA's work.

The Introduction to the Primary School Curriculum notes that the process of revising the curriculum began with the work of the Review Body on the Primary Curriculum, which published its report (the Quinlan Report) in 1990. *The report constituted a detailed appraisal of the 1971 curriculum and provided the basis for the redesign and restructuring that is presented in this curriculum* (Introduction, p.2). The 1999 curriculum has been structured in six subject areas comprising eleven subjects. Key aims, principles and features of the curriculum are explained in the Introduction and they underpin teaching and learning in all curriculum subjects. Curriculum documents (which contain content objectives and strands/strand units) and teacher

guidelines are provided for each curriculum subject. In its totality, the Primary School Curriculum aims *to enable children to meet, with self-confidence and assurance, the demands of life, both now and in the future* (Introduction, p.6). Speaking at the launch of the curriculum, Professor John Coolahan remarked, *'if we bring it off, we will have achieved a great landmark'.*

To what extent does the Primary School Curriculum support teachers in enabling children to achieve this goal? How do we know? At the launch of the curriculum Minister Mícheál Martin, T.D. echoed the recommendations of the Quinlan Report when he cautioned against complacency in answering these questions.

> *We should be continually monitoring the effectiveness of every curriculum in driving the achievement of core objectives and we should work on the basis of more gradual improvements. In the case of the revised primary curriculum, we will ensure that its impact is comprehensively understood and act to implement further changes if necessary.*

The NCCA's statutory remit, enshrined in the Education Act (1998), incorporates not just curriculum development, but also curriculum review. The Act states that it shall be a function of the NCCA, *from time to time to review the curriculum, or any part of the curriculum, for schools and the syllabuses taught and to advise the Minister* (Section 41, Subsection 2). Curriculum review is one key to improving the quality of an education system. Simply stated, it involves gathering and using information about how the curriculum is experienced at local level and to inform the ongoing process of curriculum design, development and implementation.

This first year of curriculum review involves asking general and subject-specific questions about the curriculum. General questions ask to what extent, and to what effects, teachers have engaged with

the aims, principles and features identified in the Introduction to the curriculum, in their daily work with children. This is no small task. One commentator has noted that the Introduction *seeks to capture and to communicate a sense of the much more complex and diverse educational landscape that teachers must learn to navigate with increasing sophistication if the aspirations…are to be achieved* (Sugrue, 2004, p.196-197). Specific questions ask to what extent, and to what effects, teachers have engaged with the curriculum (content objectives and strands/strand units) and with the teacher guidelines (planning and approaches/ methods) for three subjects, English, mathematics and visual arts. These were the first three curriculum subjects for which in-service was provided to teachers by the Primary Curriculum Support Programme (PCSP).

To effect its statutory remit vis-à-vis review of the Primary School Curriculum, the NCCA designed the first phase of its Primary Curriculum Review to answer these general and specific questions. Broadly stated, these review activities were designed to explore the extent to which the curriculum (aims, principles, features, content, methodologies) enables teachers to plan for, and bring about, quality learning experiences for children. The review activities were developed to probe the currency and relevance of the curriculum from teachers' perspective and experience and also to explore the supports and constraints teachers experience in enacting or effecting the curriclum in their classes. This 'Primary Curriuclum Review, Phase 1: Final Report' presents findings and recommendations from the NCCA's review of the English Curriculum, the Visual Arts Curriuclulum and the Mathematics Curriculum during the 2003/2004 school year. Council approved this final report on January 27th 2005.

RATIONALE FOR THE PRIMARY CURRICULUM REVIEW

The following key questions and answers, which are available on the NCCA website, are provided here to capture the essence of the NCCA's review of the Primary School Curriculum.

What is the NCCA Primary Curriculum Review?

It has been five years since the launch of the Primary School Curriculum in September 1999. In the intervening years, teachers have participated in the national programme of in-service for the phased implementation of the curriculum. The *NCCA Primary Curriculum Review* is designed to illuminate the experiences of teachers and children of the curriculum in their classes to date. The first phase of the review focuses on experiences with three curriculum subjects: English, visual arts and mathematics.

Why is the NCCA reviewing the Primary School Curriculum?

This first year of the Primary Curriculum Review will enable the NCCA to identify the extent to which the curriculum is successful in enabling teachers to provide quality learning opportunities for children in the primary school. The NCCA will use this information to

- Inform the development of current and future early childhood and primary projects within the NCCA

- Advise on the future of the national programme of teacher in-service for the Primary School Curriculum

- Develop a long-term programme for ongoing review of the Primary School Curriculum.

Ultimately, this review will cast a spotlight on the curriculum as it is enacted and experienced in classrooms. Information gathered

through this review will be used by the NCCA to ensure ongoing improvement of the curriculum in primary schools.

Who is the NCCA Primary Curriculum Review for?

The intended beneficiaries of the NCCA Primary Curriculum Review are primary school teachers and ultimately, children. In as much as the review is aimed at improving the quality of the curriculum, and therefore the system itself, it is also of relevance to all those who are concerned with teaching and learning in schools.

Primary Curriculum Review Activities

There were four activities in this first phase of curriculum review:

- Summary of research

- Evaluation of the Primary Curriculum Support Programme

- Teacher Template Study

- School Case Study

An overview of the first two of these activities is provided below. The third and fourth activities form the focus of this report and are described in more detail in the next part of this introduction.

Summary of research on curriculum in primary schools

A synthesis of literature pertaining to primary education in general and the Primary School Curriculum in particular, has been one key activity in this review. To date, the Primary Curriculum Review Team has scoped and accessed research studies from a number of sources. Relevant educational theses and studies (including published national assessments, independent research studies, doctoral and masters theses), were identified using the 'Aslib Index to Theses' catalogue and the library catalogues of the universities and colleges in Ireland.

Information on ongoing graduate research that could inform the Primary Curriculum Review was sought from Education Departments of the different universities and colleges. Relevant educational agencies were also contacted, for example, the Educational Research Centre (ERC) and the Economic and Social Research Institute (ESRI). The team also gathered information regarding the register of theses from the Educational Studies Association of Ireland (ESAI). Taken together, research studies retrieved from these sources have been used to create the Primary Curriculum Review database. This database of literature on the Primary School Curriculum will be continually updated and will continue to inform the work of the NCCA.

Evaluation of the Primary Curriculum Support Programme (PCSP)

This review activity, Evaluation of the PCSP, was commissioned by the DES and is co-funded by the NCCA. In October 2002, the In-Career Development Unit (ICDU) of the DES invited tenders for research of the Primary Curriculum Support Programme (PCSP) *to assess the impact of the PCSP on the management of, and support for curriculum change and implementation at primary level* (ICDU, DES, 2002). A team of researchers at Trinity College, Dublin, undertook this research. The research team has described this evaluation as a large-scale empirical investigation using a mixed-methods design, involving the gathering of numeric and non-numeric data. The research is nearing completion and will be published in spring 2005. It represents the first external evaluation of the PCSP.

Teacher template study, School case study

The NCCA designed and developed the teacher template study and the school case study. Findings from these two activities are the focus of this report. Table 1.1 shows how the methods across the two studies complemented one another.

Table 1.1: Curriculum review activities and methods			
Activity	Methods		
	Observation	Questionnaire	Interview
Teacher template study	No	Yes (teachers)	No
School case study	No	No	Yes (children, parents principals, teachers)

Teacher Template Study

Overview

During the summer of 2003, the NCCA developed curriculum review templates to be used by teachers as part of their Curriculum Day One activities during this curriculum *Consolidation and Review Year* (2003/2004). These templates were developed to assist teachers to reflect on, and plan for, their use of the curriculum documents for English, visual arts and mathematics. The templates were published in a Curriculum Review Booklet that all teachers received.

The booklet contained a review and reflection template for teachers (teacher template) which contained questions and statements to prompt teachers to think about their teaching in English, visual arts and maths. During the development of the teacher template, it became clear to the Primary Curriculum Review Team that teachers' responses to these questions would provide valuable data for the Primary Curriculum Review. A version of the template which contained more detailed rating scales was developed and printed for dissemination to a sample of schools (identified by the Education Research Centre [ERC] using the DES database). It is important to note that, in the first instance, the teacher template was designed to prompt teacher reflection during the consolidation and review year. It was subsequently ascribed the function of research tool, whilst remaining true to the goal of supporting teachers' review of their

experiences with the curriculum in English, visual arts and mathematics.

Data gathering

A total of 170 schools (stratified by size, location, recognised disadvantaged status and gender mix) were invited to participate in this study, by returning their completed teacher templates to the NCCA. Consenting schools received an additional version of the teacher template for each teacher within the school.

The content of questions in the teacher template designed for this study was identical to those provided in the teacher template in the Curriculum Review Booklet for English, maths and visual arts, in all but one regard; rating scales replaced many of the tick-boxes. Rating scales were introduced to provide more fine-grained detail regarding teachers' experiences with the Primary School Curriculum. In addition to check boxes (e.g., to respond to yes/no items), two rating scales were used in the teacher template. These closed-response rating scales are outlined in table 1.2.

Table 1.2: Types of rating scales used in closed-response items	
Usefulness rating scale	1 = not useful, 2 = somewhat useful, 3 = useful, 4 = very useful.
Frequency rating scale	1 = hardly ever/never, 2 = once or twice a month, 3 = a few times a week, 4 = almost every day.

While this review is ultimately concerned with improving the curriculum experienced by children, teachers' responses to the curriculum documents themselves provide a proxy or agent for exploring the curriculum experiences of primary school children.

Therefore, questions in this teacher template probe teachers' responses to specific aspects of the curriculum documents. For example, in each of the three subjects, teachers are asked to rate the 'usefulness' of the content strands/strand units presented in the curriculum from their own perspective. While this usefulness scale may seem particularly crude or technical, it was chosen because of its potential to elicit teachers' thoughts on the appropriateness of the content strands/strand units. In other words, this scale was used to ascertain teachers' perceptions of the 'fitness for purpose' of the content strands/strand units in enacting the curriculum with children. Similarly, the frequency scale provided a crude measure, but a useful one none-the-less, of how often teachers report using curriculum content and methods in English, visual arts and maths.

Quantitative data generated using these three response formats are presented in this report as frequency counts and percentages for each level on a rating scale. In the presentation of data based on frequency counts and percentages, the third and fourth categories, *a few times a week* and *almost every day* are combined for some questions. Data from these two categories are referred to as *at least a few times a week*.

Data analysis

Data from the Teacher Template Study were inputted into a Microsoft Excel spreadsheet where it was stored. It was then imported into SPSS (Statistical Package for the Social Sciences), where a number of new variables were computed or recoded from existing variables. SPSS was used to generate output, which was then presented in table format in Microsoft Word. Figures were created using Microsoft Excel.

Much of the data was ordinal in measurement, having been collected with closed-ended items using four-point likert scales. Many statisticians advise against the use of the mean for such data.

However, the other obvious measure of central tendency, the median, would not be very informative given the small number of points on the scale (4). While the mean is used in the presentation of results, its use is kept to the minimum. It is used to highlight patterns in the results in a broad way. Otherwise, many of the results are presented using frequencies, which of course adds substantially to the amount of detail in the results. However, in order to avoid the presentation of excessive amounts of results, results are sometimes presented in the body of the text without the full set of results.

Other procedures carried out include cross tabulations, which are used to show associations between two variables. For example, associations are often examined between the classes being currently taught by teachers and their responses to items in the template. These cross tabulations often produce interesting results. At the same time it is acknowledged that when completing the template, teachers were asked to base their responses upon their experience to date of implementing the Primary School Curriculum (1999) in English, Visual arts, and Mathematics in the classes they have taught in previous years, as well as in the class they are teaching at present. Cross tabulations involving the classes currently being taught by teachers need to be considered with this in mind.

Profile of respondents

Collectively, the teachers who responded to the teacher template represent a range of teaching positions in primary schools in Ireland. A total of 17.9% respondents (126) were male, while 82.1% (576) were female. Table 1.3 identifies the current position of respondents within their school, beginning with the most frequently reported position.

Table 1.3: Current position of teachers within their schools		
	n	%
Class teacher	488	70.0
Resource teacher	65	9.3
Teaching principal	62	8.9
Other teaching position	41	5.8
Learning support teacher	42	6.0
Total		100.0

n=698

Table 1.3 shows that according to teacher report, the majority of teachers in the sample (67%) are class teachers. Respondents to the category *other teaching position* included resource teachers for travellers, language support teachers and early start teachers. Table 1.4 shows that there is a fairly even spread across the class levels taught by respondents in the current school year.

Table 1.4: Class levels taught by respondents in the current school year			
Level	Classes	Teachers	
		n	%
1	Infants	122	20.5
2	First and/or second	151	25.3
3	Third and/or fourth	125	21.0
4	Fifth and/or sixth	198	33.2
Total		596	100.0

n=596

The total *n* for table 1.4 (596) does not correspond to the total number of class teachers reported above in Table 1.3. This is because teaching principals and other teachers, such as learning support teachers, are included in Table 1.3, but not in Table 1.4. Thus, a total of 273 (45.8%) teachers reported teaching children in the infant/

junior classes, while 323 (54.2%) reported teaching children from middle/senior classes, during the 2003/2004 school year. This categorisation of teachers teaching in infant/junior classes and in middle/senior classes will be used for cross tabulations throughout the analysis.

Table 1.5 shows that teachers with a small number of years teaching are best represented within the sample.

Table 1.5: Years teaching in primary schools in Ireland		
Years	Teachers	
	n	%
1 to 5 years	233	34.0
6 to 10 years	63	9.2
11 to 20 years	133	19.4
21 to 30 years	171	25.0
31 years or over	85	12.4
	685	100.0

n=685

Over one-third of respondents (34%) reported having spent one to five years teaching in Ireland. Additionally, over 9% of the sample reported having one to five years' experience in primary schools abroad, while almost 2% spent between six and ten years teaching abroad.

The majority of teacher respondents (58.4%) reported having a Bachelor of Education (BEd) degree while almost one third (30.6%) reported having a National Teaching (NT) diploma. One fifth of respondents (20.0%) reported having *another undergraduate degree*. This group includes teachers who have a postgraduate diploma in primary teaching. Further analysis of the data showed that 92 of all respondents, representing 12.7% of the total sample, report not having a B.Ed., an N.T. or a Postgraduate diploma in education.

Table 1.6: Post-secondary and professional qualifications held by respondents		
Qualifications	Teachers	
	n	%
Bachelor of Education degree (B.Ed.)	420	58.4
Diploma in Teaching (N.T.)	220	30.6
Other undergraduate degree	144	20.0
Other qualification	109	15.2
Diploma in Remedial Education/Learning Support	40	5.6
Postgraduate diploma in Education (primary teaching)	33	4.6
Master of Education Degree (M.Ed.)	20	2.8
Diploma in Special Education (or equivalent)	20	2.8
Other Masters degree	9	1.3

n=719

School Case Study

Overview

To further illuminate and extend data from the teacher template study, a collective case study of schools was designed and developed by the NCCA. The school case study was developed to add depth to the findings of the teacher template study by using interviews to further explore these findings in greater detail at local level. Six schools are included in this case study. Collectively, they represent a range of school types including schools with Irish as the first language (Gaelscoil, scoil sa Ghaeltacht), designated disadvantaged schools, single sex and mixed schools, rural and urban schools, schools with Newcomer student populations (students who are new to the school and the country), as well as one junior school, one senior school and one multi-denominational school. Data from these schools is based on interviews with teachers and principals, parents and children about their experiences to date with the Primary School Curriculum. This case study is described as an instrumental

case study because the Primary School Curriculum was the focus of the research, and each of the six schools was used instrumentally to illustrate members' experiences of the same curriculum. The case study is also collective, because each school case is one among six – and the findings from one school must be presented in the totality of findings for all six schools.

Data gathering

Table 1.7 presents the interview schedule for the School Case Study.

Table 1.7: Interview schedule for the Primary Curriculum Review case study	
Phase/Term 1:	• Individual interview with school principal • Individual interview with teachers (x 4)
Phase/Term 2:	• Group interview with 4 teachers and principal • Group interview with children (x 2) • Group interview with parents (x 2)
Phase/Term 3:	• Individual interview with school principal • Individual interview with teachers (x 4)

To prepare for the case study interviews, consent forms were developed for use with principals/teachers, parents and children and these were signed by all case study participants across all schools. All the interviews were recorded and transcribed. Interview guides for the seven case study interviews are provided in Appendix B.

Data analysis

The team used paper-based and software-supported analyses procedures for the qualitative case study data, as well as the qualitative data from the teacher template study. QSR NUD★IST 6 (N6) qualitative data software was used by members of the team to code initial themes and sub themes, to organise these in a hierarchical representation, and to store and later retrieve the coded data. The software also enabled the team to make connections between themes

and their sub themes, and to explore these relationships in greater detail. Each member of the team first analysed his/her interviews in this way (within-case analysis). Team members then collectively analysed school data during our team meetings to identify the key findings across all six schools (cross-case analysis).

Profile of schools

Tables 1.8 presents a profile of each case study school and the school staff interviewed. Table 1.9 provides further information on the principals and teachers in the case study schools.

Overview Of This Report

This draft final report presents findings from the first phase of the Primary Curriculum Review in five sections:

* Section 1: Introduction

* Section 2: The English Curriculum

* Section 3: The Visual Arts Curriculum

* Section 4: The Mathematics Curriculum

* Section 5: The Primary School Curriculum (general findings)

The fifth section presents findings on the Primary School Curriculum, in addition to the subject specific findings presented in the previous three sections of the report. A summary of actions arising from the review is provided in the conclusion.

Table 1.8: Profile of the 6 case study schools						
School Name	School Size (number of pupils)	Boys (B) or Girls (G) or Mixed (M)	Rural (R) or Urban (U)	Designated Disadvan-taged (D)	English L1 (E) or Gaeilge T1 (G)	Newcomer students*
Gaelscoil an Ghleanna	98	M	R	No	G	0
Lambay Educate Together National School (LETNS)	214	M	U	No	E	15
Scoil Naomh Muire (Scoil sa Ghaeltacht)	20	M	R	No	G	4
St. Bernadette's Senior School (2nd to 6th class)	340	M	U	No	E	20
St. Edward's Primary School	178	M	U	D	E	14
St. Helen's Junior School (Junior infants to 2nd class)	303	M	U	D	E	55

*Students who are new to the school and the country.

Table 1.9: Profile of principals and teachers in the six case study schools			
School Name	Principal and Teachers	Class(es)/Position	Total years of teaching experience
Gaelscoil an Ghleanna	Báirbre	Principal, 5th to 6th	22 years
	Máire	Teacher, junior & senior infants	17 years
	Geraldine	Teacher, 1st & 2nd class	3 years
	Aindrias	Teacher, 3rd & 4th class	25 years
Lambay Educate Together National School (LETNS)	Sheila	Principal	34 years
	Maria	Teacher, Senior Infants	1st year
	Fiona	Teacher, 1st class	18 years
	Béibhinn	Teacher, 3rd class	1st year
	Anne	Teacher, 6th class	20 years
Scoil Naomh Muire (Scoil sa Ghaeltacht)	Tomás	Principal, 3rd to 6th class	30 years
	Máire	Teacher, junior infants to 2nd	11 years
St. Bernadette's Senior School (2nd to 6th class)	Brian	Principal	23 years
	Michelle	Teacher, 5th class	21 years
	Sinéad	Teacher, 6th class	25 years
	Annette	Teacher, 3rd class	25 years
	Nuala	Teacher, 6th class	21 years
St. Edward's Primary School	Jean	Principal	20 years
	Sinéad	Teacher, 6th class	12 years
	Michelle	Teacher, 3rd class	4 years
	Caitriona	Teacher, 1st class	3 years
	Ciara	Teacher, Junior Infants	3 years
St. Helen's Junior School (Junior infants to 2nd class)	Jackie	Principal	25 years
	Lesley	Teacher, Senior Infants	5 years
	Clare	Teacher, 2nd class	23 years
	Rachel	Teacher, 2nd class	16 years
	Stuart	Teacher, Language Unit/class	24 years

SECTION 2:

THE ENGLISH

CURRICULUM

ENGLISH CURRICULUM

This section of the report presents an analysis of findings for the English Curriculum. Data for the English Curriculum have been organised according to the following headings:

- Strands and strand units

- Teaching approaches and methods

- Assessment

- Impact on children's learning

- Involvement of parents

- Curriculum successes

- Curriculum challenges

- Curriculum priorities

Findings in this section include teachers' responses to the teacher template, and interviews with children, teachers and principals in the case study schools. The teacher template is presented in Appendix A. Interview guides used for the case study are presented in Appendix B. Data from parents which focuses on the Primary School Curriculum in general, rather than on specific subjects, is included in Section 5.

English: Strands and Strand Units

Teacher template, English: Q1
The extent to which I have found these strands and strand units useful in my planning for English and teaching of English is as follows: (four point rating scale: not useful – very useful)

The strands of the English Curriculum are:

• Receptiveness to language

• Competence and confidence in using language

• Developing cognitive abilities through language

• Emotional and imaginative development through language

The strand units of the English Curriculum are:

• Oral language

• Reading

• Writing

Figure 2.1 presents teachers' responses to the perceived usefulness of the English strands and strand units in their planning for, and teaching of English. Mean scores (across all four points on the usefulness rating scale) were used to order the data in Figure 2.1, beginning with the English strands and strand units reported by teachers to have been most useful.

Figure 2.1 shows that competence and confidence in using language, was reported to be the most useful strand by teachers, for all three strand units (oral language, reading and writing). Receptiveness to language (strand) was reported by teachers to be the second most useful strand. Across all four strands, teachers reported oral language to be the most useful of the three strand units followed by reading, and then writing.

Figure 2.1: English strands and strand units: Usefulness for teachers
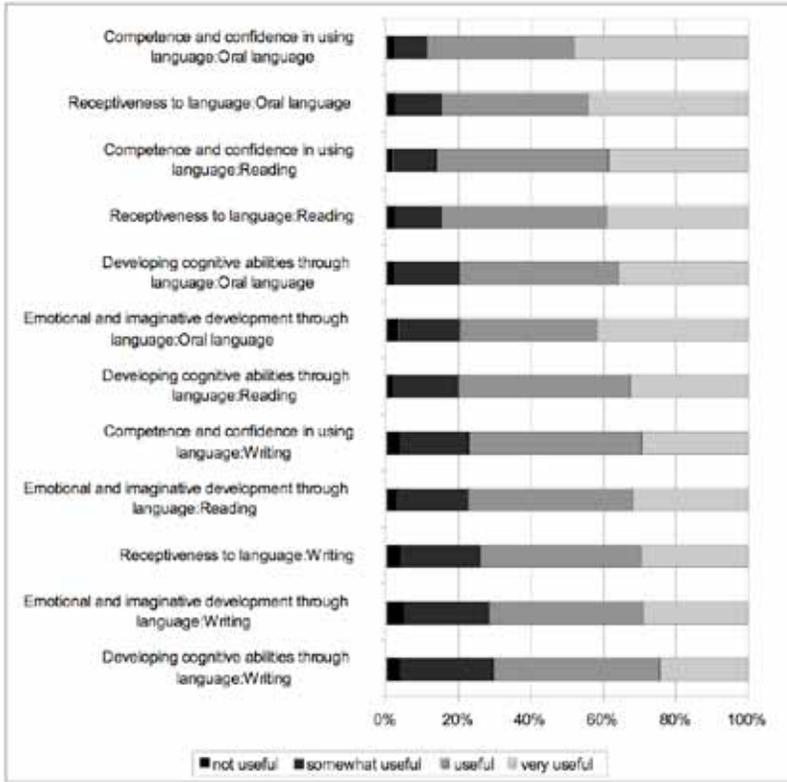
n=719

These findings were further explored in focus groups and in individual interviews with teachers and principals in the six case study schools. Some of the most pertinent points are discussed below.

Teacher and principal focus group interview, English
Question: How useful have the strands and strand units been in planning for and in implementing the English Curriculum in your school?

Strands

In all six schools, teachers and principals who participated in the

focus group interviews agreed on the limitations of the four strands of the English Curriculum, particularly with regard to their planning. One teacher noted *we had a day on English two weeks ago but we did not talk about these strands.* Her colleague added *the woolliness or vagueness or expansiveness of this language would not have been helpful in our planning.* A teacher in St. Helen's explained

> *I'm not sure if they're clear enough to be that useful to be honest. I think they're very fuzzy and it's hard to exactly plan what you're going to do to match them. I'm conscious they're on our planner and I'm conscious that they're there but I'm not sure if I can work that way from them.* (St. Helen's)

Teachers described the strands as being *obscure* and *impractical and difficult.* While teachers in the six schools noted their difficulty understanding the English strands in order to plan with them, the strand they reported being most familiar with was the one they reported to be *most useful* in the teacher template question, i.e. competence and confidence in using language.

> *Well the strands are very, very vague. We're making efforts to respond to them, but it would be much nicer if they were in plain English. Let's say competence and confidence in using language - well we do that through reciting, through debating, and presentations and class discussion, but I would not use that in my planning.* (St. Bernadette's)

Teachers reported that they substituted the four English strands for the strand units (oral language, reading, writing) in their English Curriculum planning e.g. *we hope we're going to be achieving the strands by doing the strand units.* A teacher in LETNS explained her use of the strand units in place of the strands:

> *I'd put more emphasis on making sure lessons adhere to [the strand units] oral language, reading and writing so that I would have lessons based on reading being the aim of the lesson through developing competence and confidence through language. (LETNS)*

Teachers in St. Bernadette's noted how difficult it was to think of the English strands as individual units, rather than overlapping and overarching goals, explaining *I would find it difficult to teach if I thought I had to address all the strands* (sixth class, St. Bernadette's).

In contrast to the above data, three teachers (of the 22 teachers/ teaching principals interviewed) in three different schools spoke positively about the English strands. A senior infant teacher in St. Helen's (designated disadvantaged school) noted that the strands and strand units *generally cover everything.* She commented on the importance of the strand, receptiveness to language, in senior infants and added that competence and confidence in using language (strand) is addressed towards the end of the year. A teacher of junior classes (junior infants to second class) in Scoil Naomh Muire explained that the strands made good sense to her.

> *They [the strands] focus on why we use language in our lives. We do it for communication, but that's not all. It's for the emotional development of the child, the development of the cognitive abilities of the child, the development of a sense of competence and confidence in the child.* (Scoil Naomh Muire)

Finally, a third class teacher in LETNS, in her first year of teaching, considered that the strands were laid out in a concise manner and were manageable for planning. She explained: *as a first year teacher, I have been making sure I at least attempt each strand. I have been making a conscious effort to cover each area with a certain level of success.*

Oral Language

Teachers in all six case study schools welcomed the change of emphasis in the English curriculum, which has resulted in all activities being preceded by oral work. This finding is further explored in this section under the heading, Successes.

The views of children were also sought regarding their experiences with the English Curriculum. Their responses are presented for each of the three strand units, oral language, reading and writing.

> **Children's interview, English**
> **Question:** What was your (least/) favourite part of English?
> **Question:** What did you like most/least about what you did in English?
> **Question:** What was the most exciting part of English for you? Why?

Oral language

In contrast with teachers' reports regarding the usefulness of oral language (strand unit) in English, children provided few examples of their experience with oral language in English. Senior infant children in St. Helen's said that they *talk about their favourite foods*. Third class children in St. Edwards told us they talked about their use of phonics: *in the mornings, she gets us to do four columns and then she gives us a word like 'ull' and then she gets us to think of words that end with 'ull' or have 'ull' in it.* Fifth class children in St. Bernadette's described with excitement their experience of developing a play based on a novel. When asked what, if anything, they would like to change about their work in English, children explained that they would like to *talk about real things*. One child asked for *more oral exercise in English so you can talk more about it.*

Reading

Across all six schools children spoke about their positive experiences with reading. A senior infant child in St. Helen's (a designated disadvantaged school) explained *I don't really know how to read,* and quickly added *my teacher reads to us at the end of the day!* Senior infant children in St. Helen's said they liked having their teacher read to them. When asked what kinds of books they liked, one child responded, *I like…I don't know which ones, I guess I like them all.*

A second class child in St. Helen's said she liked *big long books like Harry Potter. My brother went through five Harry Potter books. My big brother has all of them.* Her friend added *we like funny books.* Fourth class children in St. Edwards explained that they also liked *long books like Harry Potter,* as well as *adventurous books* and *killing books.* Children in St. Bernadette's said that they needed a *better selection of books, as some of the books in the library were old and … not interesting.*

Children in fifth class in St. Bernadette's said they *loved the novel* and went on to explain that they had *developed a play around the novel. It was great because we had to organise it ourselves.* When children were asked what they would like to change about what they do in English reading, fifth class children in St. Bernadette's asked for *more stories and extracts out of books that you would read in library, maybe Harry Potter, and take out the exercises, and put in more stories.*

Writing

When asked what kinds of writing they do, children in senior infants said they write *what we done at the weekend.* They explained the procedures they follow if they want to write a word, but don't know how to spell it.

> *You go to the word-bank. You have to go up and take the*
> *letter out like Fireman Fred for forest… And you have to give*
> *it up to teacher and then she writes it down… You have to*
> *copy it… We have all our letters, the Letterland ones…*
> *Sammy Snake, Clever Cat, Poor Peter, Munching Mike…*
> *(St. Helen's)*

Third class children in St. Edwards said they *wrote books just a while ago… and did limericks the other day.* A child in St. Bernadette's bemoaned her use of the textbook for writing saying, *There are too many questions… you have to look up answers and you have to write big sentences. You have to write not just words, but the whole lot, and it takes for-ev-er!*

Contexts for Oral Language

> **Teacher template, English: Q2**
> **I have enabled children to develop their oral language in various contexts as follows: (Tick box)**

Findings at the beginning of this section note that teachers reported oral language highly across the four strands. The Primary School Curriculum notes that oral interaction and presentation (for example see p.11) is key to developing children's oral language. This question explored the nature and extent to which teachers facilitate oral language in the classroom, by asking teachers to identify the contexts in which they used oral language.

Findings are presented in order, showing the number and percentage of teachers who reported using different activities to develop children's oral language. Taken together, teachers' responses to this question show that opportunities for children to use oral language are greater in discrete time for English than across other curriculum subjects. This is somewhat surprising given that oral language is

accorded particular importance in the Primary School Curriculum – it is a focus of learning in all subjects, in the belief that it is central to the development of the child's general language ability. The difference in responses for poetry and rhyme, for example, suggest that almost half of the teachers who responded do not use poetry and rhyme to develop language in the other ten curriculum subjects.

Table 2.1: Contexts for the development of children's oral language				
Activity	Oral Language			
	Discrete time for oral language		Other curriculum areas	
	n	%	n	%
Talk, discussion, and questioning	670	93.2	582	80.9
Story	644	89.6	496	69.0
Play and games	559	77.7	505	70.2
Poetry and rhyme	650	90.4	429	59.7
Improvisational drama	428	59.5	415	57.7

n=719

Of the five activities provided, respondents reported greatest use of talk, discussion and questioning to support children's development of language. This contrasts with children's perceptions of the limited opportunities for talk and discussion in school. Teachers reported least use of improvisational drama to support children's development of language, possibly explained to some extent by the fact that teachers have not yet received professional in-service training for this subject.

When responses to this question are sorted by the classes currently being taught by teachers, some differences are evident (Table 2.2). For example, 71.8% of teachers working with children in infants to second class reported using poetry and rhyme in other curricular areas, in contrast to 54.8% of teachers working with children in third to sixth class.

Table 2.2: Development of children's oral language: Poetry and rhyme				
Context	Infants to second class		third to sixth class	
	n	%	n	%
Poetry and rhyme: Discrete time	183	67.0	185	57.3
Poetry and rhyme: Other curricular areas	196	71.8	177	54.8

n=550

The difference in the amount of time devoted to the use of poetry and rhyme between the junior and senior classes, reported by teachers, may merely reflect the focus of objectives in the English Curriculum. For example, rhyme is not mentioned as a learning objective in classes more senior than first class.

Oral Language and Conversation Skills

Teacher template, English: Q3

The extent to which I help children to develop their oral language and conversation skills by giving them opportunities to practise a variety of activities is as follows:

(four point rating scale: hardly ever/never – almost every day).

This question sought to elicit information from teachers regarding the frequency of their use of six different strategies to promote children's listening and speaking skills. Teachers reported that *taking turns to speak* was the most frequently used strategy. This may reflect the use of circle time in many primary classes where there is an emphasis on turn taking and on mastering the conventions of conversation. The next most frequently used strategy involved *listening attentively*, followed by *making appropriate responses*.

Teachers reported using the strategy of *arguing a point of view and trying to persuade others to support it* least of all. Comparisons for this particular activity showed that 110 teachers of infants to second class (41.2%) reported *hardly ever/never* using this activity with children, compared with 42 teachers (13%) who teach third to sixth class. This finding is not too surprising given that arguing a point of view is a curriculum objective for senior rather than junior classes.

Reading Culture

> **Teacher template, English: Q7**
> **The extent to which I provide learning opportunities which foster a reading culture among the children in my class(es) is as follows: (four point rating scale: hardly ever/never – almost every day).**

Developing a reading culture among children is a key emphasis of the English Curriculum. The English Teacher Guidelines provide suggestions for how teachers might create a reading culture within their classrooms in English. Table 2.3 presents teachers' reported use of 10 types of activities for developing a reading culture in their class(es) in order, beginning with the activities most frequently reported by teachers.

Table 2.3 shows greatest use of teacher-directed and non-interactive activities by teachers, to create a reading culture in class. Activities which teachers reported using less frequently include collaborating on reading activities, e.g., paired reading; sharing responses to books by writing reviews etc; sharing books developed by children and participating in book events through book fairs and visits by authors etc.

Table 2.3: Use of learning opportunities which foster a reading culture		
Learning Opportunity	Mean	n
Listen to the teacher or other children reading	3.3	653
Read widely as an independent reader	3.1	619
Model reading process	3.1	633
Use, and help to administer, a class library	3.1	651
Share reading activities with parents	3.0	655
Other	2.8	58
Help to update charts	2.5	650
Collaborate on reading activities	2.5	646
Share responses to books	2.2	647
Children share their own personally created books	1.8	641
Participate in book events	1.5	633

n=719

A further analysis of the information revealed significant differences in the frequency of teachers' use of the first activity (listen to the teacher or other children reading) and with other less teacher directed activities (collaborate on reading activities and share responses to books). Some 82.8% of teachers reported fostering a reading culture by providing opportunities for children to listen to the teacher or other children reading, e.g. by means of serial reading of a class novel *at least a few times a week*. The corresponding figures are significantly lower for two other activities, collaborating on reading activities (49.4%) and sharing responses to books (34.6%).

Individual teacher interview, English

The Primary School Curriculum highlights the importance of a print-rich environment and enabling access to a wide range of texts, encouraging reading silently on a regular basis and enabling the child to develop personal tastes and interests by having the freedom to choose reading material.

Question: What have you done or would you like to do to promote a reading culture in your classroom?

Teachers at all levels within all six schools described different ways in which they promote a reading culture in their classes. Teachers noted the importance of providing a variety of types of reading material for children including books, newspapers and posters and other print materials. Some teachers of infant classes reported that developing a print-rich environment was particularly important in supporting emergent reading. The following activities, presented in order of importance, were reported by teachers to promote a reading culture in their classes:

- allowing children to choose books of interest to them, while encouraging them to experience a variety of reading genres

- engaging children in research on topics of relevance and of interest

- using a class novel, in addition to the class reader

- using software programmes which encourage children to use new words

- encouraging children to discuss what they have read

- engaging children in prediction and analysis using popular texts

- creating booklets of book reviews written by children

- reading stories created by older children to younger children within the school

- drawing the attention of children to display boards in the school

- employing the DEAR strategy (Drop Everything And Read)

- combining the development of a reading culture in conjunction with a film culture.

- endeavouring to ensure there was a whole school approach to the promotion of a reading culture.

Teachers noted that reading activities *should be enjoyable* and that children should be afforded the opportunities *to discuss what has been read* with their peers.

Findings presented later in this section (Q20) show that one of the successes reported by teachers in implementing the English Curriculum was in developing a reading culture within their classes.

Genres

Teacher template, English: Q10
The genre(s) which children use in their writing in my class(es) are: (four point rating scale: hardly ever/never – almost every day).

The curriculum emphasises the importance of children's use of a variety of genres as they learn to write for different purposes and audiences. Findings from this question are presented as mean scores in Table 2.4. These are presented in order, beginning with the genres that children most frequently use in their writing, according to teacher report.

Table 2.4: Mean frequency of children's use of genres in their writing		
Genre	Mean	n
Story	2.6	601
Description	2.6	590
Reaction to reading	2.4	581
Fiction	2.3	567
Explanation	2.3	563
Poem	2.1	594
Summary	2.0	567
Captions	2.0	606
Diary	2.0	582
Report	1.9	564
Dialogue	1.9	564
Note	1.8	566
Letter	1.8	576
Record of learning	1.7	555
Project work	1.7	560
Critique	1.6	562
Proposal/plan	1.5	558
Complete book	1.5	549
Argument	1.5	560
Learning logs	1.4	525
Recipe	1.4	564

n=719

The most frequently used genres reported by teachers are story, description, reaction to reading, fiction, explanation, and poem. Those genres least frequently used by children include recipes, learning logs, argument, and complete books. Apart from recipes, which are accorded the least frequent use, the eight genres which are least used are those which involve greater use of higher order thinking skills by children. A comparison of three activities illustrates the differences more clearly, in Table 2.5.

Table 2.5: Use of activities to foster a reading culture								
Class teacher	hardly ever/ never		once or twice a month		at least a few times a week		Total	
	n	%	n	%	n	%	n	%
Story	47	7.8	226	37.6	328	54.6	601	100
Summary	175	30.9	225	39.7	167	29.4	567	100
Project work	230	41.1	270	48.2	60	10.7	560	100

n=719

While 328 teachers (54.6%) reported using story *at least a few times a week or almost every day,* the corresponding figure for project work is just 60 teachers (10.7%). This is of note given that cross–curricular, thematic, interdisciplinary project learning is one principle of the Primary School Curriculum. Additionally, the Introduction to the Primary School Curriculum notes that *the child's higher-order thinking and problem-solving skills should be developed* (p.9). In contrast, these findings suggest that teachers' use of different genres in English focuses on developing children's lower order thinking, such as knowledge and comprehension, above the higher order thinking skills of analysis, synthesis and evaluation.

Spelling, Grammar, and Punctuation

Teacher template, English: Q11

The extent to which I teach spelling, grammar and punctuation in 'mini lessons', incorporated into the writing process (drafting/ editing/redrafting) as follows: (four point rating scale: hardly ever/ never – almost every day)

A broad objective of the English Curriculum states that the child will be enabled *to expand his/her vocabulary and develop a command of grammar, syntax and punctuation* (p.11). The English Curriculum notes that *punctuation and spelling [and grammatical conventions] … should be*

approached in the context of general language learning (p.6). Findings from this question provide insights into the teaching and learning of spelling, grammar and punctuation, though teachers' use of mini-lessons. Table 2.6 shows that the frequency of teachers' use of mini lessons for spelling, grammar and punctuation are broadly similar, with 560 teachers (83.4%) incorporating short lessons on spelling *at least a few times a week.*

Table 2.6: Use of mini-lessons for spelling, grammar and punctuation									
Activity	hardly ever/ never		once or twice a month		at least a few times a week		Total		
	n	%	n	%	n	%	n	%	
Spelling	38	5.7	73	10.9	560	83.4	671	100	
Grammar	39	5.9	109	16.4	515	77.6	663	100	
Punctuation	38	5.7	102	15.4	521	78.8	661	100	

n=719

As Table 2.6 shows, approximately 20% (or between 16.3% and 21.1%) of teachers *hardly ever/never or only once or twice a month* incorporate mini-lessons on spelling, grammar and punctuation into the writing process. Further analysis of the data shows that the majority of the teachers who reported 'hardly ever/never' incorporating these mini-lessons were infant class teachers. While the Teacher Guidelines for English provide support and direction for the teaching and learning of spelling (p.85), and grammar and punctuation (p.84 and p.88), these findings suggest that teachers may need more explicit guidance on how to incorporate mini-lessons into their teaching.

Further data on the extent to which the teaching of these skills is embedded in the reading and writing process is provided later in this section under the headings Successes and Challenges with the English Curriculum.

ENGLISH: TEACHNG APPROACHES AND METHODS

Teacher template, English: Q13
The extent to which I use the following organisational settings in the teaching of English: is as follows: (rating scale: hardly ever/never – almost every day).

Figure 2.2 presents teachers' reported frequency of use of four organisational settings in English: whole class teaching, individual work, groupwork and pairwork.

Figure 2.2: Use of organisational settings in English
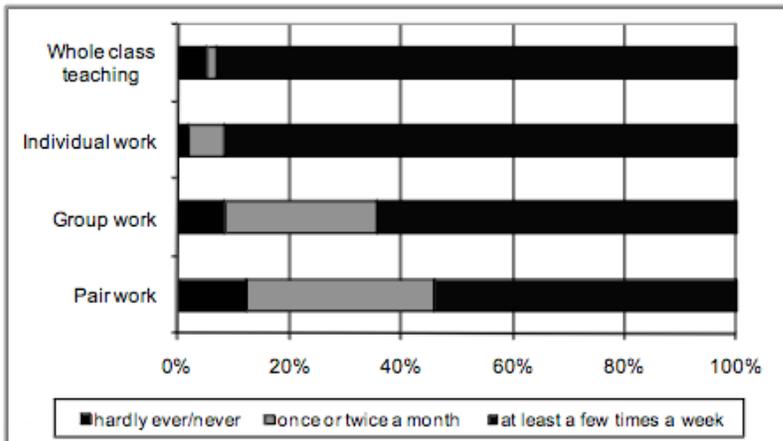
Figure 2.2 shows that whole class teaching is the most frequently used organisational setting reported by teachers, followed closely by individual work. A total of 64.4% of teachers reported using group work *at least a few times a week*, while 82 teachers (12.2%) reported *hardly ever/never* using group work. Over one third of teachers (35.6%) reported using group work *once or twice a month* or *hardly ever/never*, while almost 50% of teachers reported using pair work *once or twice a month* or *hardly ever/never*. These findings suggest that while many teachers have incorporated a range of organisational settings into their teaching, a significant number of teachers have yet to use collaborative group strategies in their daily teaching.

When asked what they liked most about English, children spoke most about their experiences with groupwork, and projects and their discussions with other adults.

> **Children's focus group interview, English**
> **Question:** What was your (least/) favourite part of English?
> **Question:** What did you like most/least about what you did in English?
> **Question:** What was the most exciting part of English for you? Why?

Groupwork in English

Children in four schools told us that they often work in groups for English. A child in Scoil Naomh Mhuire explained his experience of reading groups, *sometimes we work on our own and sometimes we work with other children. Sinéad and myself often read books together. We take turns turning the pages. I prefer to read some books on my own.* Fourth class children in St. Edwards explained that they often read in groups,

> *Sometimes when we read it one day, say for homework, if we read a page, we'll go over it the next day and we might do it in groups…groups like group one and there is group two and three and four. Group four gets reading from other teachers. But they do work that we do as well. (fourth class, St. Edwards)*

Fifth class children explained that *the groups were for organising the tables and the books and stuff.* None of the children interviewed expressed a preference for groupwork above independent work, though the groups, as observed by the child in St. Bernadette's, seemed more organisational than collaborative.

Projects in English

Children in three schools reported that they had completed projects during the current school year. A fourth class child explained her experience of projects as follows:

> *I did a project on racism. Cora got these pictures for us and there was a little booklet that she had and we had to write a comment on what you liked the best and it was all kinds of pictures, people being hurt. I found that I got a lot out of it.*
> *(fourth class, LETNS)*

One of her friends told us that *with [the] sharks [project] you had to look up lots of books and things and write down loads of information and you learn from that.* Children described their use of ICT for project work. One child explained, *we went on the Internet and we got sheets printed off from the Internet and we marked off the bits we wanted, highlighted what we wanted to write down.* A child in St. Bernadette's said *the projects were cool, but we had to go next door to see if we could use their computer, to see if they could find the information for us.* This quote provides an example of the challenges that were outlined earlier by teachers who identified organisational constraints as a reason why they did not use computers to assist in the teaching and learning of English.

Talking to other adults

Although the children interviewed did not talk much about oral language and discussion within their own classes, they spoke enthusiastically about conversations they had with *visitors* to the school. Children in St. Edward's school said they met a number of people in the school recently including *a teacher from secondary school,* and *a scientist*, as well as *a man in talking to us on Tuesday about relationships and all that*. The children told us, with excitement, that *before Christmas a guy came in from Australia. He talked about beetles and*

frogs. And an alligator bit off his finger! Children in St. Bernadette's school described going *to World of Wonder [toy store] to meet this novelist about her book Justine Richards. It was cool.*

> **Teacher template, English: Q14**
> The extent to which children in my class(es) present their work in different ways in English is as follows: (rating scale: hardly ever/ never – almost every day)

This question asked teachers to identify the extent to which children presented their work using four strategies: play scenarios, oral presentations, hand–written accounts and ICT. Teachers reported that oral and handwritten presentations were the most frequently used ways of presenting children's work. Some 606 teachers (87.2%) indicated that children presented their work in hand written format *at least a few times a week* compared with 578 teachers (83.6%) for oral presentations. On the other hand, almost half the teachers (46.7%) reported that children *hardly ever/never* use ICT-based presentations, compared with 49.5% for play scenarios. Table 2.7 shows that as one might expect, there are significant differences between the extent to which play is used in junior and senior classes.

Table 2.7: Presentation of children's work in English using play						
Play scenarios	Infants to second class		third to sixth class		Total	
	n	%	n	%	n	%
Hardly ever/never	103	39.9	168	54.7	271	48.0
Once or twice a month	101	39.1	116	37.8	217	38.4
At least a few times a week	54	20.9	23	7.5	77	13.6
Total	258	100	307	100	565	100

n=550

Table 2.7 shows that while 54 teachers (20.9%) of children from infants to second class reported using play scenarios *at least a few times a week,* this contrasts with just 23 teachers (7.5%) of children from third to sixth class. Within the category of teachers who teach infants to second class, the data (not presented here), shows that 29 teachers (25.7%) reported that children *hardly ever/never* use play scenarios to present their work, compared with 74 teachers (51%) of children in first or second class. These findings contrast with the role of play in developing the child's learning, which is afforded particular importance in the English Curriculum. The English Teacher Guidelines note that *as a learning medium play is crucial in the junior classes* (p. 41). The role of the teacher is considered *crucial in helping children to use imaginative play to extend and enrich their language ability and their conceptual framework* (p. 42).

Although the English Curriculum notes that the use of ICT enhances children's language development (p. 9), 158 teachers (65.3%) of infants to second class reported *hardly ever/never* using ICT to present children's work, compared with 112 teachers (35.4%) of middle/senior classes. Responses to the next question focus on teachers' reported uses of ICT in general to support the English Curriculum.

ICT

Teachers were asked to respond to one of two questions concerning their use of ICT. Question 15a asked teachers to list the ways they have used ICT and to specify the type of ICT they used, while Question 15b asked teachers to explain why they have not used ICT.

> **Teacher template, English: Q15a**
>
> I have used ICT to support the English Curriculum in the following ways:
>
> i) List the ways you have used ICT (Blank text box)
>
> ii) Specify the type of ICT used (software, Internet, peripheral devices, etc.) (Blank text box)

In all, 537 teachers responded to this question, representing a 74.7% response out of 719. Analysis of teachers' responses identified four ways in which teachers use ICT to support the English Curriculum (Table 2.8).

Table 2.8: Ways teachers use ICT in English		
Activity	Teachers	
	n	%
Writing	273	50.8
Spelling, phonics and grammar	174	32.4
Reading	75	13.9
Software	47	8.8

n=537

Table 2.8 shows that in their responses, some teachers cited strand units of the curriculum where ICT was used, e.g. *writing* while others focused on describing the purpose of their use of ICT e.g., *for spellings*. This variation in response from a curriculum focus to an ICT focus may indicate that teachers were unclear on how the term *ways* was to be interpreted in the question. The four most frequently reported *ways* by teachers of using ICT in English are described in the following paragraphs.

1. Writing (50.8%)

Though the most frequently mentioned use of ICT was for *stories*, further analysis showed that *writing stories* included *typing stories which have been written throughout the week and creating a book,* and *presenting stories, reports, poems, reviews etc.,* rather than creative writing. A further examination (Table 2.9) of the responses showed that teachers reported using writing in a number of ways, from word processing, to *typing up* or *presenting* work such as *stories and poems* that were originally handwritten.

Table 2.9: Types of ICT used in writing		
ICT used	Teachers	
	n	%
Writing stories	147	27.4
Presenting or presentation	55	10.2
Typing	44	8.2
Creative writing	37	6.9
Word processing	32	6.0
Printing	23	4.3
Writing poems	20	3.7

n=537

While 6.8% of respondents mentioned the use of ICT for creative writing, these responses frequently alluded to its use in the *presentation of* [the] *final stage of writing process*. Some creative uses mentioned included *typing news and adding pictures to creative writing stories.* Other teachers noted that they used ICT for *writing out poem*s and that *children printed their creative writing work*. One teacher mentioned *writing reports on library books* while five teachers mentioned that they used ICT in *re-drafting creative writing*. Only one teacher commented on using ICT for communicative purposes in writing: *E-Pals, dialogue*. In general, many teachers' references to ICT for writing work related to *typing out* or *typing up*. Teachers commented on the use of ICT *presentation writing, adding captions, pictures and various effects*. Taken together, teachers' responses to this question indicate that teachers' use of ICT for writing was limited to transcription, editing and presentation.

2. Spelling, phonics and grammar (32.4%)

Teachers identified spelling as the second most frequent use of ICT in the English Curriculum. The majority of teachers responded to the question using the single word *spelling*, without further

explanation. Some others explained that they used ICT for *spelling exercises,* using software programmes and games. In general, teachers who reported using ICT for phonics did not elaborate on their response. Some teachers explained, *I have used ICT to improve children's phonics rhyming, matching ability,* and *to practice sound/word recognition.* A minority of teachers reported using ICT for grammar, paragraphs and punctuation.

3. Reading (13.9%)

Teachers identified Reading as the third most frequent use of ICT in the English Curriculum. The majority of respondents did not comment on how they used ICT for reading. Some teachers reported using ICT for the *development of word id* [identification] *and reading strategies* and *reinforcing reading skills.*

4. Software (8.8%)

Teachers did not elaborate their use of software to support the English Curriculum. Some teachers mentioned using software for *literacy, research* or *word recognition* without further explanation. Some teachers commented on the suitability of software for a class level, mentioning they used *appropriate software* and *vocabulary development/sound work/ matching games suitable software for junior infant level.* One teacher reported on the *use of some software for children with learning difficulties.*

The overall findings from this first part of Q15a indicate that while almost three-quarters of teachers reported using ICT in some way in English, its use is mainly for word processing type activities. Only 7.4% of teachers reported using ICT for research purposes or for creative uses.

The second part of Q15a asked teachers to specify the *type* of ICT they used in the English Curriculum. A total of 515 teachers responded, representing a 71.6% response out of 719. Responses

focused on the types of software used, and included proprietary names of particular products. Table 2.10 identifies the four types of ICT which teachers reported using to support the English Curriculum.

Table 2.10: Types of ICT used to support the English Curriculum		
ICT used	Teachers	
	n	%
Writing software	270	52.4
Literacy support software	146	28.3
Unspecified Software	94	18.2
Internet/Research	67	13.0

n=515

In addition to the findings presented in Table 2.10, eight teachers reported that they used a digital camera, four reported using a scanner, and three teachers noted that they used a laptop. Only seven teachers reported that they used a printer, a response which does not equate with the main reported use of ICT in English as writing. Findings in Table 2.10 are discussed below.

1. Writing software (52.4%)

Teachers identified writing software as the most frequently used type of ICT used to support the English Curriculum. The programme(s) named by teachers were in the main generic applications with some use of specific child–focused writing software, using grids and picture/ word templates.

2. Literacy support software (28.3%)

Literacy support software was the second most frequently used type of software reported by teachers. Teachers named the specific software products that they used. Early literacy support products, many of which have been on the market for a number of years, were

frequently reported. Phonics and literacy skills support software and spelling software were also used by teachers.

3. Unspecified software (18.2%)

94 teachers mentioned that they used *software* without further specifying what software was used or its purpose.

4. Internet/research (13%)

Teachers' identified the Internet and research as the fourth most common type of ICT used to support English. Use of the Internet was mentioned by 61 teachers (12%), while only nine teachers (1.7%) reported that they used research software.

Teacher Template Study
English Curriculum: Q15b
The main reason I have not used ICT to support children's learning in English is as follows:
(Blank text box)

A total of 211 teachers responded to this question, representing a 29.3% response out of 719. Table 2.11 shows that teachers provided four reasons for not using ICT in the English Curriculum. These findings are discussed after Table 2.11.

Table 2.11: Reasons why teachers reported not using ICT in English		
ICT used	Teachers	
	n	%
Insufficient number of computers	67	31.7
Time constraints	44	20.8
Classroom organisation and management with ICT	33	15.6
Lack of resources/software	27	12.7

n=211

1. Number of computers (31.7%)

Teachers identified availability of computers and access to computers, as the main reasons why they did not use ICT to support the English Curriculum. Teachers reported the ratio of children to computers as the most challenging factor, e.g. *we have one computer between 30 pupils.* Others noted the difficulty of using *one computer with 30 children in a multi class situation*. A few teachers commented also on the fact that there was *no computer room in the school,* or that it was oversubscribed, *being used daily for special needs.*

2. Time constraints (20.8%)

Teachers identified time constraints as the second major reason why they did not use ICT in the English Curriculum. Teachers commented that ICT was *very time consuming*. Some teachers elaborated on their response citing lack of time because of the breadth of the curriculum, or because they had multi-grade classes. Time for implementing all aspects of the English Curriculum was identified as a major challenge for teachers (for further information see analysis of Q21 later in this section).

3. Classroom organisation and management (15.6%)

Difficulties with classroom organisation for ICT was the third reason cited by teachers for not using ICT in English. Multi-class settings and mixed ability levels were identified as particularly difficult for teachers. Teachers related the issue of organisation to the number of computers available to children, *access to only one computer - so difficult to organise individual times for pupils without interfering with other curriculum areas.* Class size was identified by teachers as part of this issue, *just too many children (27) in classroom and not possible to organise in my present situation.* It was also evident that the size and layout of the classroom also caused difficulties, e.g. *class too big for computer room,* and *lack of space in classroom.* A small number of teachers also

mentioned *discipline* as a difficult issue while using computers in the classroom.

4. Resources (12.7 %)

Teachers cited *lack of suitable and appropriate resources* as a further impediment to ICT use in English. Responses focused on the challenge of finding appropriate and suitable material, e.g. *not enough resources for all levels of children -not challenging enough for older children.*

Only 12% of respondents believed that their perceived lack of skills and their limited confidence using ICT were further impediments to their use of ICT in English. The four challenges to ICT use in English (number of computers, time, organisation and management strategies and resources) were also the four most frequently cited challenges in visual arts and mathematics.

ENGLISH: ASSESSMENT

> **Teacher template, English: Q16**
> The extent to which I assess children's progress in English in different ways is as follows:
> (four point rating scale: not useful – very useful).

This question asked teachers to rate the frequency with which they used six different assessment strategies to support the English Curriculum. It is important to explain that there are some difficulties with the use of the four point rating scale for this question. For example, while 78.6% of teachers reported that they *hardly ever/never use* standardised tests, it is not possible to infer that all these teachers do not use standardised tests during the school year, as the only next response available to them was *once or twice a month*. It is possible that some teachers who use a standardised test once a year, may not have provided any response. The same may apply in the responses to

teachers' use of curriculum profiles and diagnostic tests. In the case of curriculum profiles, diagnostic tests, and standardised tests, there were a total of 135, 146, and 148 teachers respectively who did not indicate any response.

Class teacher	hardly ever/ never		once or twice a month		at least a few times a week		Total	
	n	%	n	%	n	%	n	%
Teacher observation	1	0.2	2	0.3	661	99.5	664	100
Teacher-designed tasks and tests	12	1.8	179	26.8	476	71.3	667	100
Work samples, port-folios and projects	66	10.1	234	35.9	352	54	652	100
Curriculum profiles	371	63.5	158	27.1	55	9.4	584	100
Diagnostic tests	389	67.9	148	25.8	36	6.3	573	100
Standardised tests	449	78.6	94	16.5	28	5	571	100

Table 2.12: Use of Assessment tools in the English Curriculum

n=719

Table 2.12 presents the frequency with which teachers reported using the six assessment tools, beginning with teacher observation, followed by teacher designed tests and tasks. Some 661 teachers (99.5%) reported using teacher observation *at least a few times a week,* compared with 352 teachers (54%) for work samples, portfolios and projects. A total of 476 teachers (71.3%) reported using teacher-designed tasks and tests *at least a few times a week.* The findings show that teachers reported greater use of informal assessment tools, e.g. teacher designed tests and tasks, than formal tools, e.g., curriculum profiles.

Further analysis of the frequency of teachers' use of these assessment tools between both groups of classes (infants to second, third to sixth class) reveals no major differences or patterns. The following question extends these findings by providing information on the challenges teachers face in assessing children's learning in English.

Teacher template, English: Q17

In my experience, the main challenge (if any) in assessing children's learning in English is:

The response was sought using an open response box with 'challenge' in one column and 'reason(s)' in the other column.

A total of 519 teachers responded to this question, representing a 72.1% response rate out of 719. Nine teachers (1.7%) reported experiencing *no challenge* in assessing children's learning in English. Three of these teachers noted that the follow-up to assessment was the key challenge, e.g. *I don't find it [assessment] a challenge - the main challenge is in remediation of the learning difficulties that children experience.* Analysis of responses identified three key challenges experienced by teachers in assessing children's learning in English (Table 2.13). Each challenge is explored in the discussion which follows Table 2.13.

Table 2.13: Challenges in assessing children's learning in English		
Challenges	Teachers	
	n	%
Time	183	35.2
Appropriateness of assessment tools	128	24.6
Catering for the range of children's abilities	96	18.5

n=519

1. Time (35.2%)

Just over one-third (35.2%) of teachers identified time as a challenge in assessing children's progress in English. Teachers noted that, *Large classes mean very little time [for assessment].* Given the range of abilities in large classes, teachers commented that there was *insufficient time for individual assessment… in a class of 33 with four special needs.* Teachers noted the different rates of readiness and learning of individual

children and reported that assessment in multiclass settings posed particular difficulties, e.g. the *multiclass group [is] too large [for assessment]*. The challenge of finding time to administer tests and record results was also cited by teachers. A learning support teacher noted that *it is difficult to obtain a detailed assessment of each child in all areas of English - reading, writing, phonics, [and] oral language.*

The fact that teachers who responded to this question identified time as being the singular most significant challenge to assessing the child's progress reflects a general concern with a lack of time to implement the curriculum, discussed elsewhere in this report.

2. Appropriateness of assessment tools (25.8%)

Some 31 teachers (5.9%) reported finding a suitable test as their greatest challenge in assessment in English, e.g., *The main challenge in assessing is making sure it is a realistic assessment of how the child has progressed*. Teachers noted the challenge of *finding a means of assessment that is encompassing and gives a full picture of [a child's] ability in English.* Teachers commented on the *limitations* and *restrictions* of standardised tests in *getting a total picture of [a] child's learning.*

Some 34 teachers (6.5%) referred to the challenge of finding tests suitable for the range of children's abilities in English. Finding *suitable diagnostic tests for pupils with special educational needs* as well as finding tests to *support and cater for non-national children's needs* were cited as challenges. Teachers also noted the challenge of finding appropriate tests given the *restricted language of children in disadvantaged areas*. Teachers explained that when the vocabulary of the test did not match the vocabulary of the pupils, the results were sometimes distorted.

In addition to the challenges they associated with standardised tests, teachers noted challenges concerning the use of *teacher observation and*

teacher designed tasks. Teachers questioned how best to *devise tasks and tests appropriate to child's needs and abilities.* Teachers were also unsure of the benchmark against which children should be measured, and identified *finding a standard to measure achievement* as a challenge. Teachers asked, *How do you quantify how "good" a child is at creative writing, reading for pleasure etc?* Teachers noted the difficulty of assessing oral language, given its significant role in the curriculum. Some 48 teachers (9.2%) cited the challenge of *assessing [children's] oral language development.* Teachers also referred to the challenge of obtaining an *accurate evaluation of [children's] vocabulary.*

3. Range of achievement/ability in English (18.5%)

A total of 96 teachers, (18.5%) cited the *huge range in ability* of children in English as an assessment challenge and noted that *children progress at different rates and need to be monitored individually.* In addition to the range of children's achievement in English within one classroom, teachers referred to the range of levels of achievement across the three strands of English: oral language, reading and writing, noting the *difference in oral language and reading age [of individual children]* as well as the *language-written word gap.* The challenge of trying to *quantify competence in oral language* was cited as a particular challenge by teachers.

It is interesting to note that 22 teachers (4.2%) cited the limitation of their own knowledge of how to assess children's learning in English as a challenge.

ENGLISH: IMPACT ON CHILDREN'S LEARNING

Teacher Template Study, English Curriculum: Q19

In my experience, I think the Primary School Curriculum: English (1999) is impacting on children's learning in the following ways: Please list in order of importance, with the most significant impact as number one. (Blank text box)

A total of 591 teachers responded to this question representing a response rate of 82.1%. An analysis of responses identified 7 impacts that the English Curriculum was having on children's learning, (Table 2.14).

Table 2.14 Impact of the English Curriculum on children's learning		
Impacts	Teachers	
	n	%
Oral language	240	40.7
Improved literacy (reading and writing)	202	34.1
Breadth of experience in English	163	26.8
Self-confidence/success	158	21.3
Enjoyment of English	69	11.6
Independence in learning	54	9.1
Spelling, phonics and grammar	47	8.0

n=211

Table 2.14 shows some confusion between responses to features/principles of the English Curriculum and consequences for children. With hindsight, this question might have been better worded to focus explicitly on children's learning. A discussion of the four most significant impacts on children's learning reported by teachers is provided below.

1. Oral language (40.7%)

Responses to this question reflect the prominence afforded to oral language in the English Curriculum. According to the English Teacher Guidelines, *[A] pivotal role …has been given to oral language, both for its own sake and as a crucial integrating factor in the English programme* (p13). Table 2.14 shows that 240 teachers (40.7%) identified the emphasis on oral language as having a significant impact on children's learning. Teachers noted that *children are allowed to become more expressive and orally proficient so they are better able to communicate.* Teachers further explained that as children become more articulate in their speech this impacts on their learning so that *children [are] more willing to express an opinion and more willing to contribute.*

Teachers also suggested that the focus on oral communication has *improved the standard of reading and listening skills.* In addition to influencing the cognitive development of the child, teachers reported that oral communication has also affected the development of children's social skills so that they are now more willing *to listen to the views and opinions of others, learning to take turns in a classroom situation.*

2. Improved literacy (34.1%)

Teachers identified reading and writing together rather than as separate units in their responses. Therefore, findings for reading and writing are presented using the term, literacy. A total of 202 teachers reported improved literacy (that is an improvement in the child's reading and writing skills) as a significant impact of the English Curriculum. In general, teachers reported that children have become more willing and able to read since the introduction of the English Curriculum and there is *greater interest in the broader spectrum of reading material*. Commenting on the development of children's literacy skills over time, teachers noted that *children are speaking and reading more effectively but children are making slower progress in writing.* Teachers

reported that oral language had supported the development of children's literacy, as children are now *talking about, critiquing and recommending books to others.*

3. Breadth of experience in English (26.8%)

Some 163 teachers (26.8%) reported that the range of learning experiences afforded to children in English is having a key impact on children's learning. Teachers noted that children *now read and write using different genres.* The increased *emphasis on the process of reading and writing, not final performance or product* was also noted by teachers. Teachers reported that this breadth of experience in English provides *broader scope for capable children and greater opportunities for less capable children.* Teachers suggested that the wide range of *learning skills gives children the opportunities to develop more up-dated skills necessary to participate in a climate of change.* Teachers also indicated that this variety of learning skills enabled children to build up their confidence in English, which is further discussed below.

4. Self-confidence (21.3%)

Teachers cited increased confidence among children as the third most important impact of the English Curriculum on their learning. Teachers noted that children's increased confidence with English has had a positive influence *on their approach to learning.* For example, this teacher explained how children gain confidence in their work through the writing process:

> *Children's confidence is enhanced as their first drafts or every word in a piece of reading doesn't have to be correct. They can make mistakes as children are more willing to attempt words as a result of the Language Experience Approach which encourages more positive attitudes towards reading, writing, and spellings. Children are learning to think independently.*

This quote exemplifies a general contentment with the learner-centred nature of the curriculum. It is interesting to note that 11.6% of teachers also identified increased enjoyment of English as a successful outcome for children's learning. Finally, 9.1% of teachers mentioned a growing sense of learner autonomy as one of the successes for children's learning in English. Interestingly, this figure is broadly reflective of the percentage of teachers who reported using projects to enhance children's learning in English.

ENGLISH: INVOLVEMENT OF PARENTS

> **Teacher Template Study, English Curriculum: Q18**
> **I involve parents/guardians in supporting their children's progress in English by: Please list in order of importance, with the most significant impact as number one. (Blank text box)**

A total of 696 teachers responded to this question, representing a 96.8% response rate. Teachers' responses to this question focused less on the ways they involve parents, e.g., teacher/parent communications, and more on the ways they hoped parents/guardians would support their children's learning, e.g., help with oral language. The phrase, *encourage help with*, is used in Table 2.14 because respondents did not provide more detailed information on how they initiate or invite this involvement by parents. Findings for the same question in mathematics (Table 2.14) suggest somewhat greater efforts by teachers to involve parents (e.g., by sharing assessment information). Teachers responses to this question across all three subjects, suggest that teachers rely almost entirely on teacher/parent communications in the form of periodic meetings and written notes to involve parents/guardians in their children's learning. Table 2.15 presents the seven ways teachers reported involving parents in their children's learning in English. A discussion of the four most frequently reported involvements follows Table 2.15.

Table 2.15: Involving parents/guardians in children's learning with the English Curriculum		
Involvement of parents	n	%
Encouraging help with reading	486	69.8
Giving homework	291	41.8
Encouraging library visits	108	15.5
Organising teacher/parent communications	69	9.9
Encouraging help with spelling, phonics and grammar	64	9.1
Encouraging help with writing	62	8.9
Encouraging help with oral language	34	4.8

n=696

Most respondents identified just one action taken by teachers to involve parents/guardians in their children's learning, while others noted four or even five. A discussion of the four most frequently cited actions is provided below.

1. Encouraging help with reading (69.8%)

Teachers reported *asking* and *requesting* and *inviting* help with reading as the most significant way they involve parents/guardian in their children's learning in English. Teachers noted the importance of encouraging parents/guardians to read with their children e.g. *parents must be very involved in supporting their children's progress in English by reading for the child and with the child.* Teachers suggested that schools could assist parents/guardians and their children *by providing reading material for shared reading with parents.* Teachers also noted that *parent volunteers* already provide much support for the school's paired reading programme. According to one teacher parents/guardians have a key role to play in providing wider contexts for the child's reading by giving *encouragement to read outside curriculum texts – newspapers, comics, novels etc.* Teachers also identified a number of approaches to reading that parents/guardians might use with their children e.g. *shared reading, paired reading, sustained silent reading* and *read aloud.*

Finally, teachers noted that parents/guardians have a key role to play in *encouraging children to like reading*. As already noted, teachers did not elaborate on the strategies they use to encourage this involvement by parents.

2. Giving homework (41.8%)

A total of 291 teachers reported giving homework as one means of involving parents and guardians in supporting their child's progress in English. Teachers noted that homework is an *essential link* between the child's home and the school and suggested that *parents need to know the what, how and why of homework*. Teachers stressed the importance of *sharing information concerning homework and how to help the child with homework*. Many teachers reported a less active involvement of parents/guardians in their children's homework and focused instead on *checking homework, signing homework or supervising homework*. Teachers noted that *getting parents to sign the daily homework diary* facilitated parental/guardian involvement. This finding, that for some teachers parents'/guardians' signing and/or supervision of homework represents sufficient involvement in assisting the child's learning, is echoed in the mathematics section later in this report.

3. Encouraging library visits (15.5%)

Joint use of the library by children and their parents/guardians was identified as the third most significant means by which parents/guardians could support children's progress in English. A total of 108 teachers (16%) identified the need for parents/guardians to *join the library or to use the library*. Teachers explained the need to *get parents to support the child going to the library* for *reading and research*. Some teachers noted that their role is to *give parents advice on extra books and visits to the library*. Finally, teachers added that *parents could help with library work* ensuring that there was a link between the work that was undertaken in the library, in the school and in the home.

4. Organising teacher/parent communications (9.9%)

Some 69 teachers noted that *direct communication* was one way in which they have encouraged parents'/guardians' involvement in their children's learning. The most frequently reported form of direct communication between teachers and parents was through parent/guardian-teacher meetings. Teachers reported scheduling parent/guardian-teacher meetings *once or twice a year*, in addition to *maintaining regular contact with parents if needed by phone or appointment, depending on the needs of the child* and *keep[ing] parents informed of work to be undertaken and (the child's) progress to date.*

The need to ensure that parents/guardians understand the English Curriculum was also reported an important element of teachers' communications with parents/guardians. The *importance of language* was cited by teachers who indicated that parents/guardians were provided with guidelines to assist in strengthening the home/school ties in implementing the curriculum. Many teachers stressed that they kept an open door policy regarding access to their classrooms, though further details were not provided and some noted that *a lot of our parents do not speak English so it is hard to involve them.*

ENGLISH: SUCCESSES

> **Teacher Template Study, English Curriculum: Q20**
> **The greatest success which I have experienced in implementing the English curriculum is …**
> **(Blank text box)**

A total of 532 teachers responded to this question representing a 73.9% response rate. Teachers reported seven successes in implementing the English Curriculum. These successes, stated as actions, are identified in Table 2.16. The four most significant successes mentioned by respondents are discussed after Table 2.16.

Table 2.16: Teachers' successes with the English Curriculum		
Successes	Teachers	
	n	%
Children's literacy	328	61.6
Children's self-confidence	183	34.3
Oral language	159	29.8
Teaching methods	100	18.7
Integration of English with other subjects	31	5.8
Children's awareness of words and sounds	29	5.4
Support for less able children	26	4.8

n=532

1. Children's literacy (62%)

As with Q17, the vast majority of teachers did not discriminate between the teaching and learning of reading and writing in their responses. The heading 'literacy' is used to represent these findings, although the focus was mostly on reading. A total of 328 teachers identified developing children's literacy skills as their greatest success with the English Curriculum. Teachers reported developing a whole-school approach to reading and writing as one of their greatest literacy successes including, e.g., *Big books for language development for junior classes, and planned presentation of lots more books and stories.* The success with emergent reading for children in junior classes is also a feature of the focus group interviews which are discussed following this question. Teachers identified a process-oriented approach to writing as one success of the English Curriculum. Teachers reported providing *mini lessons on spelling punctuation and grammar which greatly improve children's written work.* Findings for writing are tempered by findings from Q21 in the teacher template study, which show that 13.6% of teachers encountered challenges in implementing the teaching and learning of writing.

2. Children's self-confidence (34%)

A total of 183 teachers reported that their greatest success in the English Curriculum was developing *contented, confident and enthusiastic learners.* Teachers identified their greatest success in terms of *happy and confident children leaving the class.* Encouraging the affective dimension to children's learning was cited as a success in terms of the English strand units (reading, writing, and oral language):

> *My greatest success is the children's enjoyment and enthusiasm for writing. With all the support in place, plenty of oral work beforehand, word walls, posters with word families, word banks etc, the children are more confident about writing and use their imagination to its fullest.*

Further echoing findings from Q1 at the beginning of this section, competence and confidence in using language (strand) also featured in many teachers' responses to this question. Teachers reported *seeing children grow in confidence when they have to read aloud their own writing.* Teachers cited the fact that they had engendered a *love of books* as their greatest success in implementing the curriculum.

> *Children are more competent and confident in expressing themselves both orally and in writing. They seek out other books by the same author. They enjoy reading books for pleasure.*

Teachers also reported increased independence and learning autonomy for children as their greatest success with the English Curriculum, e.g. *seeing the children's confidence grow when they have to read aloud their own writing.*

3. Oral language (29.8%)

In all, 159 teachers reported that *encouraging children's oral language* was their greatest success with the English Curriculum. Respondents

focused on changes in their own teaching of oral language:

> *[The English Curriculum has led to] a change in my attitude towards oral work, a willingness to spend more time on oral discussion and a greater realisation of the impact of oral language development on the child's overall progress in English and other curricular areas.*

The cognitive dimension of oral language was recognised as being successful by teachers who reported that, *allowing time to talk [made sure that] the children become involved and somewhat responsible for their own learning.* As a result of implementing *talk-time* teachers noted that children were *more engaged in reading and writing,* thus oral language had a positive impact on all areas of the English Curriculum.

4. Teaching methods (18.7%)

According to the Teacher Guidelines for English, language teaching demands a variety of approaches and methodologies (p. 34). Some 100 teachers reported that using a variety of teaching methods was their greatest success with the English Curriculum. Teachers noted that *children have been exposed to a far greater range of teaching resources and methods which enhances the children's enjoyment and interest in the English language (reading, writing and speaking) and allows for greater development in reading, writing and speaking.* Small numbers of teachers reported using ICT as well as groupwork to support their teaching with the English Curriculum. Teachers noted that the range of teaching and learning methods in the English Curriculum resulted in more authentic and realistic learning for children, e.g. *I have enjoyed using a variety of text media and found the activities I'm doing are more relevant to the reality of children's lives in a modern society.*

It's worth noting that in addition to these four findings, 6% of teachers reported that creating links within the English Curriculum

(linkage) and across subjects in the Primary School Curriculum (integration) has been their greatest success.

The findings from the focus group interviews provide additional information regarding the successes that teachers encountered while implementing the English Curriculum.

> **Teacher and principal focus group interview, English**
> **Question: What have been your greatest successes with the English curriculum?**

Emergent reading

In individual teacher interviews, infant teachers noted that the delayed introduction of formal reading resulted in positive attitudes to reading and greater confidence in reading for children. *I think that that [delaying formal reading] was the big thing that the revised English curriculum did for us here* (St. Helen's). In focus group interviews teachers in St. Helen's (junior) school identified emergent reading as one significant success of the English Curriculum. They reported gains in children's reading, as a result of focusing on emergent literacy in the infant classes and delaying the introduction of formal reading.

> *This is my fourth year with second class, and I have noticed that … the weaker children in comparison to a few years ago are, well they have greater competency in language and more skills than before. Now with the base line being raised, I am not talking about feet here now, you are talking about maybe in terms of centimetres. But definitely, I would have noticed that even the weakest of the weak of children, could actually manage to read sentences. Even the weaker ones seem to have more skills and just seem to be that little bit better at attacking it than maybe a few years ago. (St. Helen's)*

Another infant teacher concurred saying *it [delaying formal reading] certainly has not held them back in any way, which is the big fear people had. You don't think in terms of 'is it going to help them go forward?'* In Scoil Naomh Muire, the principal explained; *we send books home from day one in junior infants, and they read at home. If it's a child with English, we send English books home, if it's a child with Irish, we send Irish books home.*

Reading genres

Reflecting the findings in Q1, teachers in all six schools spoke positively about reading in the English Curriculum e.g. *I would say we are very happy with the reading and the approach to reading.* Teachers explained, *They [children] are more willing to give it a go and I think they enjoy the different books.* Teachers noted that *children are reading more, they're enjoying reading, they're not stuck to the same old text, there's no enjoyment in a lot of those old readers, but now they're experiencing different authors, good literature.* Another teacher identified the impact that access to a wider variety of publications and genres is having on the children's reading. For example,

> *It's giving the children a chance to investigate other genres that they might not have been aware of at home … in the class they're introduced to classical literature and then there's modern literature and kids would focus more so on the modern but through showing them the different genres and presenting them in interesting ways it does cultivate an interest.* (LETNS)

Teachers in senior classes in two schools expressed their views that the teaching of the novel had been a success. As one teacher explained: *children found the books very entertaining. We've read two novels now. They like the content and they look forward to the next chapter. It gives a lot of children an interest in reading again, because a lot of children don't read.* Another teacher noted the success of the novel in terms of it being an authentic learning resource: *The novel is not a schoolbook at*

all. *The word schoolbook has certain connotations for students.* Her colleague, the principal added, *Also I heard you saying that there are a few little risqué paragraphs in the novels which children enjoyed -something about kissing and drugs and this kind of thing, but real stuff* [all nod in agreement]. Teachers explained that authentic resources like the novel provide a stimulus for children's oral language development

> *The novel has given us opportunities to use character sketches and to have other activities based on the book. It's a much more wholesome activity in terms of involving all members of the class. You can actually discuss with children how the plot is developing. You can also do a little predicting and so on, whereas the stories in the reader are isolated stories - there's only so much you can do with them.* (St. Bernadette's)

Teachers also reported that *children like to read books by other children in the school* and noted the positive experiences children have had becoming *authors of their own works, which are then shared with peers.*

Oral language

Teachers described their use of oral language as one success of the English Curriculum. One teacher noted *they enjoy the greater emphasis on oral language.* Teachers described the many opportunities for oral language during the course of the regular school day.

Many opportunities arise in the classroom on a day-to-day basis which also give me an opening to engage in talk and discussion and improvisational drama, for example a playground incident can give rise to a discussion on fairness and allow for a drama to enact different responses to difficult situations. Play and games allow the children to learn in a fun way, even a game of hangman at five to three allows the children to develop their thinking and reasoning skills and alphabetical knowledge.

(Gaelscoil an Ghleanna)

Tagann a lán deiseanna id' threo go laethúil sa rang a thugann slí isteach chun cainte nó chun plé, nó chun drámaíochta ar ala na huaire, mar shampla, thosnódh eachtra sa chlós, thosnódh sé plé ar chothrom na féinne, agus d'fhéadfá an drámaíocht a úsáid chun freagairtí difriúla do chásanna áirithe a léiriú. Foghlaimíonn na páistí i slí thaithneamhach spóirtiúil tríd an súgradh agus na cluichí. I gcluiche Hangman fiú, ag cúig chun a trí, tugann sé caoi do na páistí, a scileanna machnaimh agus réasúnaíochta agus a gcuid eolais aibítre a fhorbairt.

Describing her experiences with oral language in the curriculum, a teacher from LETNS explained *we have more emphasis on language in every subject and going through all the other strands as well. I've got used to doing nothing without doing lots of oral work first*. Similarly, in individual interviews teachers explained that the emphasis in the English Curriculum on oral work in the junior and senior infant classroom *does lay a good foundation for the classes that follow.* Teachers in all six schools reported spending greater amounts of time than before on engaging in talk and discussion before various English activities.

Principal Interview

Question: What have been your greatest successes in your role as principal, implementing the Primary School Curriculum in your school?

Changes in teaching oral language and reading (strand units) were reported as successes with the English Curriculum by the principals interviewed. For example, the principal of Gaelscoil na Ghleanna

noted the school's efforts *to ensure that children listen and communicate clearly and confidently and to teach children how to apply communicative skills with speed, accuracy, understanding and total enjoyment.* This captures the emphasis on oral fluency within the curriculum and its importance in enabling the child to engage with learning in a positive way. Promoting a culture within schools that supports positive experiences of learning through language was reported as a success by five principals. The principal of LETNS expressed the belief that by strengthening the child's confidence in communication through oral language, his/her capacity for learning would also be strengthened e.g. *the [focus on oral] language has improved the standard of language and vocabulary, the structure of language has improved. As the children gained confidence, they have become more exploratory.* Principals in four schools cited encouraging positive attitudes among children toward reading as another success in English e.g. *I think the new approach to reading in the curriculum is great for promoting reading and for creating a reading culture.* This comment by the principal in St. Edward's echoes those by other principals and reflects the thinking articulated in the English Curriculum that *building on growing reading and comprehension skills, the child can be led to appreciate the usefulness and pleasures of reading* (Primary School Curriculum, Introduction, 1999, p.5). Principals did not identify the third strand unit, writing, as a particular school success with the English Curriculum.

It is interesting to note that within the English Curriculum, principals and teachers identified oral language and reading as successes. The fact that writing was not mentioned as a success is a cause for concern, given that reading also received greater focus than writing in teachers' descriptions of their successes with literacy (teacher template). Teachers' experiences with writing are further explored in the next question, which addresses challenges in implementing the English Curriculum.

ENGLISH: CHALLENGES

Teacher Template, English Curriculum: Q21
The greatest challenge I have experienced in implementing the English Curriculum is: (Blank text box)

A total of 596 teachers responded to this question representing 82.9% of the total number of respondents. Teachers identified 7 key challenges in their implementation of the English Curriculum, presented in Table 2.17. Discussion of the four most frequently mentioned challenges follows Table 2.17.

Table 2.17: Teachers' challenges with the English Curriculum		
Challenge	Teachers	
	n	%
Time	223	37.4
Curriculum organisation (using English strands)	101	16.9
Oral language	190	15.1
Writing	81	13.6
Catering for the range of children's abilities	79	13.3
Teaching methods and approaches	58	9.7
Spelling, phonics and grammar	13	5.0

n=596

1. Time (37.4%)

In all, 223 teachers identified lack of time as the most challenging aspect of their work with the English Curriculum. As noted earlier, teachers also identified time as a challenge in assessment in English. Expressing the views of many teachers, one respondent stated that *timetabling for English activities and allocating sufficient time for each strand is a real challenge.* In order to meet the challenge posed in relation to planning one teacher made a *call for planning templates.* Another teacher, who found time constraints to be an issue, noted the challenge of *finding the time to do everything and ensuring I don't spend*

too long on English to the detriment of other subjects. A few respondents noted that they were enabled to implement the curriculum when integration occurred:

> *There are many different aspects of English that need to be explored and sometimes it is hard to find the time to explore them all. However, it must be said that these aspects can be very easily integrated with other subjects and that helps with time restrictions.*

Class size was frequently reported as a related challenge, e.g. *time constraints particularly in a class of 26 children.*

2. Curriculum organisation (16.9%)

Some 101 teachers reported that the organisation of the English Curriculum itself was a key challenge. Teachers identified the strands and strand units as most challenging. One teacher explained, *the strands mean nothing to me. I do not see the relevance of them - I cannot plan my English scheme around these, as I simply do not understand them.* Teachers reported that given the difficulty with the English strands, *planning for English is very difficult.* Teachers reported their need for additional planning advice in English, e.g. *I'd love templates for long and short term planning that doesn't involve copious amounts of writing.* These comments appear to reflect a broad concern identified in this report for the usefulness of the English strands in planning for and implementing the English Curriculum which teachers reported made it difficult *to get an overall picture of the English curriculum.*

3. Developing oral language (15.1%)

While oral language has a critical role in the English Curriculum as the foundation for children's language and literacy, 90 teachers reported that the development, implementation and assessment of a suitable oral language programme was their greatest challenge in

implementing the English Curriculum. While time and resources were cited as issues, fundamental concerns were also raised regarding how oral language should be taught and learned:

> *I wondered whether to maintain an onward direction always*
> *and to "brush over" ORAL mistakes being repeated regularly*
> *OR to actually make an actual lesson based on/dedicated to/*
> *the remediation of those routine/ regular oral mistakes.*

In general, teachers' responses to this question indicate that they would welcome further support in using oral language with children.

4. Teaching and learning writing (13.6%)

A total of 81 teachers identified the teaching and learning writing as a challenge in implementing the English Curriculum. In addition to time issues, e.g., *all writing including drafting, editing, redrafting is very time consuming,* teachers noted that learning how to teach process writing is a challenge:

> *It was a challenge to accept the value of writing as the process*
> *rather than the final product/find that the children can find*
> *drafting and re-drafting and re-writing a bit of a chore and I*
> *fear that this might dampen their enthusiasm and spontaneity.*

Teachers reported that *coping with the extent of the various writing genres* was challenging, as was the issue of writing assessment. In one teacher's view *assessing the pupils' improvement in English creative writing and oral language is very subjective.* Teachers also expressed concerns regarding the quality of children's writing and their *difficulties with basic sentence structure and expression, which at senior level poses a huge problem.* This finding, added to other findings in this section, show that clearly, some teachers are encountering challenges in implementing a successful writing programme as part of their implementation of the English Curriculum.

A further analysis of data provided in response to this question revealed that given the broad scope of the English curriculum, it is difficult to give each child the attention he/she needs when dealing with a large class with wide-ranging abilities and backgrounds. The issue of catering for the range of different abilities in English was mentioned by 13.3% of the respondents to this question, one of whom stated that *it is impossible to give every child adequate individual attention.* It is interesting to note that 39.1% of teachers identified this as a challenge for implementing the mathematics curriculum.

Through the school case study, teachers and principals provided further explanation of the challenges teachers encountered as they implemented the English Curriculum.

Teacher and principal focus group interview, English
Question: What have been your greatest challenges in the English curriculum? (Blank text box)

Expectations for English in Irish medium schools

Teachers in the gaelscoil identified a particular challenge with regard to the teaching of English in Irish-medium schools.

There is only one curriculum in English and we are expected to reach the same level of achievement as they do in ordinary schools. We are under extra pressure with the reading in both languages. We'd like more help with the approach to the introduction of reading and writing. Why should the child in a Gaelscoil have a double work load, when the child in other schools doesn't read in Irish until in second class (Gaelscoil an Ghleanna)

Níl ach curaclam amháin i mBéarla agus táthar ag súil go mbainfimid an caighdeán céanna amach sa Bhéarla agus a bhaineann siad i ngnáthscoil. Táimid fé bhrú breise leis an léitheoireacht sa dá theanga. Ba mhaith linn treoir bhreise ar thús na léitheoireachta agus na scríbhneoireachta. Cén fáth go mbeadh ualach dhá oiread níos mó oibre ar pháiste sa Ghaelscoil, fad is nach léann an páiste i scoileanna eile sa Ghaeilge go dtí Rang 2.

Teachers in the one other Irish–medium school in the case study, Scoil Naomh Muire, supported their observations.

Children's language level

In focus group and individual interviews, teachers noted the difficulty of teaching oral language to children with diverse levels of language ability, as the following quote explains:

> *We have children who are natives or from Ireland… [they] have a lot of language and have access to a lot of language and that's fantastic… Then we have the children who come from backgrounds where they wouldn't have been engaged with, or wouldn't have been spoken to regularly… We have a lot of children from other countries who have no English and some of them have parents who are very anxious for them to learn the language and to get involved. Then we have children from other countries whose parents couldn't care less about them learning English and who aren't interested in becoming involved. So we have a full diversity in terms of language and language needs and stages of language development. (St. Bernadette's)*

Teachers in the two designated disadvantaged schools and one other school described children's lack of oral vocabulary as a particular challenge in working with the English Curriculum:

The language is hard. Some children have not got everyday language, you know, it is the actual every day language that certain children would have. In other areas, they don't have it and that hinders you in some way. You have to actually teach basic vocabulary plus also oral language. (This) can't always be planned, it's something that can just arrive incidentally in class. (St. Helen's)

Echoing findings elsewhere in this report, teachers spoke about the

importance of parental involvement in the child's learning and language development. Teachers also noted their need for differentiation strategies that would enable them to support the language needs of different children.

Resources and funding

Teachers identified lack of funding for English resources as one key challenge to implementing the curriculum:

> *I know there's a plan to buy readers, graded readers and that, and we are going to go ahead with it. But you are talking €5,000 or €6,000 for that. It is a lot of money. The funding has not matched the expectations.* (St. Helen's)

Teachers in other schools also reported *very little funding backup for English*. Despite the potential of authentic resources to support the English Curriculum (novels, etc.) teachers explained that the costs of purchasing these were prohibitive.

Spelling, phonics and grammar

A further challenge identified by teachers in three schools concerns teaching and learning spelling, phonics and grammar in the Primary School Curriculum.

> *There isn't that much in the curriculum in relation to how spelling is done and we did find that we were at a loss for how we were going to approach it seeing as it was one of our concerns.* (LETNS)

A concern with spelling, phonics and grammar appeared consistently throughout the responses provided by teachers in different questions concerned with the English Curriculum. Thus far in this section at least 5% of teachers indicated that they would welcome greater

support and guidance to teach these discrete language skills. In the next question, a significantly higher percentage of teachers indicate that they would like to prioritize the teaching and learning of spelling, phonics and grammar.

ENGLISH: PRIORITIES

> **Teacher Template, English Curriculum: Q22**
> **In furthering my own implementation of the English curriculum, I would like to prioritise the following:**
> **(Blank text box)**

605 teachers responded to this question, representing an 84.1% response rate. According to these responses, 7 priorities for implementing the English curriculum were identified and these are presented in Table 2.18.

Table 2.18: Teachers' priorities for the English Curriculum		
Challenge	Teachers	
	n	%
Writing	209	34.5
Oral language	182	30.0
Reading	143	23.6
Spelling, phonics and grammar	92	15.2
Drama	65	10.7
ICT	59	9.7
Planning	43	7.1

n=605

In addition to the 7 priorities identified above, 18 teachers (2.9%) prioritised a need for greater home-school links in implementing the English Curriculum. A discussion of the first four most significant priorities is provided below.

1. Writing (34.5%)

A total of 209 teachers prioritised writing in their ongoing implementation of the English Curriculum. Many teachers reported that they intended to *work more thoroughly on the process of writing to improve the children's writing skills*. In order to achieve this, one teacher stated that she/he *would like to develop my approach to creative writing as I still find it difficult to implement long-term writing projects in the classroom*. Another teacher noted that his/her priority was to *develop an editing code throughout the school*. Defining the skills of *editing and re-drafting* were also priorities for teachers in their classroom planning, e.g. *I need to introduce a proper writing scheme splitting groups according to ability and teaching them accordingly*. The use of groups as a means of addressing the individual writing strengths and weaknesses of children was also a priority for teachers who wished to introduce *differentiation and giving more time to children individually and paired groups*. An analysis of these data suggests that there is a relationship between a teacher's capacity to cater for different learning abilities through different forms of classroom organisation, and his/her ability to implement an effective writing programme.

2. Oral language (30%)

Some 182 teachers identified the teaching and learning of oral language as a priority in furthering the implementation of the English Curriculum. Teachers reported their need for *more time [to be] given to oral language lessons such as - circle time, debating, language games/ story chains etc*. Building on particular aspects of children's oral language skills was a priority for some teachers, e.g. *expressing their [the children's] own opinions and interpretations*. Teachers identified *audibility and clarity of enunciation while communicating* as the focus of their ongoing work in English with children. Teachers also identified the integration of oral language into other areas of the curriculum as a priority, e.g., *I intend to carry oral language into visual arts.* In this

context, there is a question regarding the extent to which the principle of *the dual function of language learning and learning through language* (English Teacher Guidelines, p.2) is realised in the teaching and learning of English. The notion of the importance of mathematical language and maintaining a consistency in relation to its use is certainly an issue that features in the section on findings regarding mathematics.

3. Reading (23.6%)

A total of 143 teachers cited children's reading as a priority. Different elements of the reading programme were included in teachers' responses including *the need to prioritise early intervention for non/failing readers.* Teachers also prioritised *involving parents in children's reading at home.* Many teachers prioritised the reading process, e.g. *introducing various activities used to aid the children in their understanding of text.* Integration of reading was another area of priority and teachers prioritised using *a variety of genres* for their reading programmes. Others identified classroom strategies they would use to implement reading in the class including *shared reading, buddy or paired reading and also sustained silent reading.* Generally, the comments regarding reading which respondents made indicated that teachers had a vision that they wished to attain in order to improve the children's reading skills over time.

4. Spelling, phonics and grammar (21.1%)

One-fifth of teachers (92) reported that, in the words of one teacher, *phonics needs more attention.* Respondents reported that *punctuation, grammar and spelling skills* should be prioritised in order to *strengthen children's literacy.* This was borne out by the experiences of one teacher who stated that there was a need for *teaching phonics to supplement reading and writing skills.* One teacher, echoing others, prioritised *greater consistency in teaching of phonics, structure analysis and*

contextual analysis. Several teachers expressed a belief that planning for a *whole school approach in phonics would support underachievers.*

Findings for this and previous questions indicate that teachers would welcome more detailed guidance regarding when and how to support the child's growing literacy through a focus on the discrete language skills of spelling, phonics and grammar. The responses illustrate that teachers are looking for a sense of balance between holistic language approaches espoused in the curriculum and the need to improve children's discrete language skills through recitation and practice. Other areas of priority for teachers included using drama more effectively (10%). A total of 59 teachers (9.7%) prioritised *a greater use of ICT to support the English curriculum*, although most did so without mentioning the ways they hoped ICT might be able to support teaching and learning in the English Curriculum. Finally, 43 teachers (6.9%) identified planning as a priority for furthering their implementation of the English Curriculum.

A summary of findings and recommendations from this section on the English Curriculum is presented in the Executive Summary at the beginning of this report.

SECTION 3:

THE VISUAL ARTS

CURRICULUM

VISUAL ARTS CURRICULUM

This section of the report presents an analysis of findings for the Visual Arts Curriculum. Like the previous sections, data for the Visual Arts Curriculum have been organised according to the following headings:

• Strands and strand units

• Teaching approaches and methods

• Assessment

• Impact on children's learning

• Involvement of parents

• Curriculum successes

• Curriculum challenges

• Curriculum priorities

As for Section 2, findings for visual arts include teachers' responses to the teacher template, and interviews with children, teachers and principals in the case study schools. The teacher template is presented in Appendix A. Interview guides used for the case study are presented in Appendix B. Data from parents which focuses on the Primary School Curriculum in general, rather than on specific subjects is included in Section 5.

Visual Arts: Strands and Strand Units

Teacher template, visual arts: Q1
The extent to which I have found these strands and strand units useful in my planning for Visual arts and teaching of Visual arts is as follows (rating scale: not useful – very useful)

There are six strands in the Visual Arts Curriculum:

- Drawing

- Paint and colour

- Printing

- Clay

- Construction

- Fabric and fibre

and two strand units:

- Making art (MA)

- Looking at and responding to art (LR)

Figure 3.1 shows teachers' responses to the usefulness of the visual arts strands and strand units in their planning and teaching. Analysis of the visual arts data from the teacher templates was confined to class teachers and teaching principals (550 respondents), because teachers in the other teaching categories (e.g. learning support) do not use the Visual Arts Curriculum on a day-to-day basis. However, responses to this question are based on the entire sample (719 teachers) as teachers other than class teachers and teaching principals provided responses for this question.

Mean scores (across all four points on the usefulness rating scale) were used to order the data in Figure 3.1, beginning with the visual arts strands and the strand units reported to be most useful by teachers.

Findings in Figure 3.1 show that teachers reported greater levels of usefulness for two strands, drawing and paint and colour. These

strands were rated highly for both strand units: making art and looking at and responding to art. This finding is not surprising given that these strands were inherited from, and promoted within the 1971 curriculum. For all six strands, teachers reported greater levels of usefulness for the strand unit, making art, than for the strand unit, looking at and responding to art. Of the 12 ratings of usefulness presented in Figure 3.1, it is interesting that the least levels of usefulness reported by teachers were for looking and responding (strand unit) across the four strands, construction, fabric and fibre, clay and print.

Figure 3.1: Visual arts strands and strand units: Usefulness for teachers
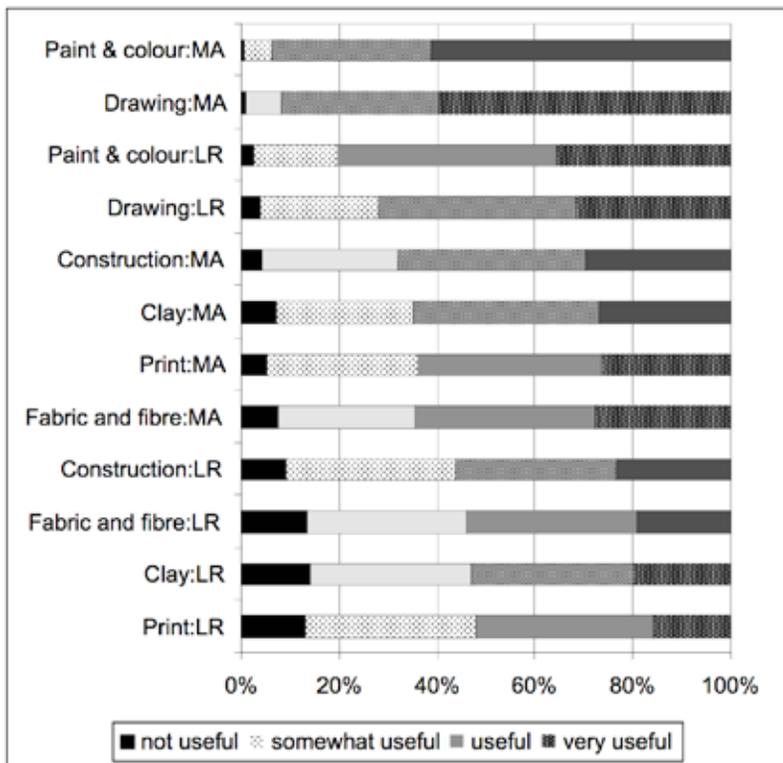
n=719

Patterns of usefulness reported by teachers were broadly similar across classes. Figure 3.2 shows some slight difference in the reports of

usefulness across strands and strand units from teachers of infants/ junior classes (levels one and 2) and middle/senior classes (levels three and 4).

Figure 3.2: Making art and print: Usefulness for teachers
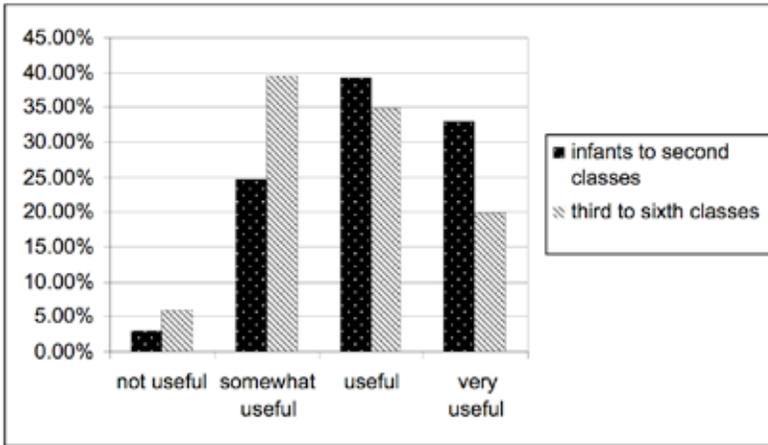
n=260–302

The strand showing the greatest difference across classes is print, in the strand unit making art. Figure 3.2 shows that 86 teachers of infants/junior classes (33.1% of respondents) found this strand and strand unit *very useful*, compared with 60 teachers (19.9%) from middle/senior classes. If teachers' perceived levels of usefulness of curriculum strands and strand units act as one proxy for beginning to describe classroom practice, this finding suggests that print making activities may be more frequent in the junior classes than in the senior classes, which is not surprising.

While teachers attributed the greatest levels of usefulness to the 2-dimensional (2D) strands (drawing, and paint and colour), additional findings, presented below, indicate that most teachers reported also working with 3-dimensional (3D) media.

Teacher template, visual arts: Q3

In general, children have equal opportunities to use both two and three-dimensional media in my classes (Tick box: yes/no)

While 390 teachers (70.9%) reported that children had equal opportunities to use both 2D and 3D media in their classes, the remaining 29% of teachers reported that children do not. This supports the earlier findings that teachers' use of the Visual Arts Curriculum favours the 2D strands, drawing and paint and colour.

Teacher interview, visual arts

Question: How useful have the strands and strand units been in planning for and in implementing the Visual Arts Curriculum in your school?

Teachers in the case study schools were also asked how useful they found the visual arts strands and strand units in planning for and implementing the Visual Arts Curriculum. In five of the six case study schools, teachers responded that the strands and strand units of the Visual Arts Curriculum had enabled them to achieve success in visual arts in their schools. In one school (LETNS) teachers referred to the curriculum as very idealistic in general given the difficulties of implementing a curriculum with limitations of *time* and *space*.

In the other five schools teachers explained that the structure of the Visual Arts Curriculum facilitated classroom planning and school planning for visual arts. Teachers responded positively to the breadth of the Visual Arts Curriculum. Teachers in St. Helen's noted, *Because of the different strands, the variety of work that is being done is great. The children are getting a great flavour of all these different strands.* Teachers in St. Bernadette's welcomed the *emphasis on fabric, fibre, construction and clay.* One teacher reported that her class *recently did cross-stitch and … the enthusiasm among both sexes was great. They loved it!*

Children's interview, visual arts

Question: What was your (least/) favourite part of visual arts?

Question: What did you like most/least about what you did in visual arts?

Question: What was the most exciting part of visual arts for you? Why?

Children in the six case study schools were also asked what they thought of the Visual Arts Curriculum. They identified visual arts as one of their favourite subjects and then explained what they liked most about visual arts.

Visual arts – a favourite subject

When asked what they like doing most of all in school, children in all six schools chose art (visual arts). Children were unanimous in identifying art as one of their two favourite school subjects.

Interviewer: *If I asked you what are your favourite things, what would you tell me Michaela?*

Respondent: *Maths and* **Art***.*

Interviewer: *Caoimhe, what would your two be?*

Respondent: **Art** *and Maths as well.*

Interviewer: *Daryl, what about you?*

Respondent: *Basketball and* **Art***.*

Interviewer: *Ruth, what's yours?*

Respondent: **Art** *and lunch!* (second class, St. Helen's)

At the end of the interview, when asked if they would like to change anything about their school, a child in St. Helen's reported that if she could successfully do away with school itself, her only regret would be losing visual arts in the process.

Interviewer: *Is there anything that I have missed that you want to tell me?*

Respondent: *I want to get rid of school! Well except for the Art part and all the good stuff* (second class, St. Helen's)

Breadth of activities

When asked why they liked visual arts so much, children explained that they liked the *different activities in visual arts*. In each school, children described the breadth of their visual arts experience, referring to at least four strands of the Visual Arts Curriculum. When asked what he liked most about art, a 4th class child in St. Edwards responded, *all of it, it's all good!* One child referred to each of the six strands of the Visual Arts Curriculum when asked to explain what she liked most about visual arts.

> *I liked the weaving. We got a black sheet and folded it over, cut it and other paper and we start going over and under. Last week we had to draw loads of squares and it was really complicated and it turned out into a three dimensional tunnel and it looked cool. Also teachers lets us go into groups, first we do a shape and paint over it with candles. Then she would have a group with blocks. We would do rolling. We worked with clay and made our own pots and it was fun and cool. We had to do sketches of a person's shoes on our tables. For Easter we had a chicken thing, and we got wool to make feathers. We had to do a portrait of ourselves and put it on the wall at the beginning of the year. My face turned out green. I love art.*
> (4th class, LETNS)

Children in each school spoke with excitement about the opportunities *to make stuff* in visual arts, e.g. *making things with cardboard and stuff and making your own masks.* One child explained, it's great because *you can get into it and do it yourself.* Another child added, *there's always something to make with whatever you have.*

Resources for making and doing

Children described a range of materials they use to make things including household materials, *old toilet rolls, cotton wool* and *boxes.* A second class child in St. Helen's identified the resources that she uses in visual arts including, *paper, rolling things and fingers… scissors and pencils. We have foam kind of brick things; we once used those for printing. But we use the cardboard instead now.* Children also referred to their use of different mark-making tools in art, *we used pens and markers, paint and crayons and ink too.* A second class child in St. Helen's discussed her awareness of the properties of different visual arts tools:

Interviewer: *Are pastels harder to colour with?*

Respondent: *Yes they are. They stink. They smell like a bonfire.*

Interviewer: *What is the difference between pastels and crayons?*

Respondent: *Dusty things don't come out of crayons but they come out of pastels.* (second class, St. Helen's)

In addition to discussing a range of resources and materials for visual arts, children spoke with great excitement and enthusiasm about their experiences with two strands of the Visual Arts Curriculum, clay and printing.

Clay

Children in five of the six schools spoke about their hands-on experiences with clay in the Visual Arts Curriculum. They described

their use of clay to create different objects. A third class child in Scoil Naomh Muire explained, *I liked working with the clay and making things with it. I made a vase for flowers but it broke and then I made an aeroplane.* A 4th class child in LETNS explained, *We could make a well, a photo frame, or a pot and we are going to decorate them when they are dry.* Children described opportunities to be creative with clay, while exploring form in their environment.

Respondent: *We got clay and started making it into our faces. We didn't have to make ourselves but we could make something along the lines of ourselves. We had to flatten down the shape of the head and then make a kind of a fan at the bottom.*

Respondent: *He was making his Dad and he broke his nose the other day and he told him his nose fell off. [Laughs]* (third & 4th classes, St. Edward's)

Printing

Children in three schools described, with great enthusiasm, their experiences with printing in the Visual Arts Curriculum. One child explained with confidence the procedures involved:

> *First you get the roller and put it into the ink and you have to make a picture and then roll the ink onto your picture. Then you put a page on top of it, then dry your roller, you roll it on, then take the page off and you have a picture (second class, St. Helen's).*

A 4th class child in St. Edward's described with excitement her printing accomplishments so far this year, *We did Celtic art prints. We cut the sponges to make a certain shape and printed it out.* She told us she looked forward, with anticipation, to doing some printing later in the school year, *I think we are going to do hand printing as well with our fingers too!*

Children's enthusiasm for the four newer strands of the Visual Arts Curriculum (described above), contrasts to some extent with teachers' low ratings of usefulness for (and perhaps use of) these strands. It is interesting to note that of *all* the children interviewed – representing a range of ages, achievements and family and school experiences – no child reported not liking art.

Choice of Materials

Teacher template, visual arts: Q5
In general children have a choice in the materials they select for their own use in making art in my class(es).
(Tick box: yes/no)

A total of 341 teachers (62%) reported that children in their classes have a choice in the materials they select for their own use in making art. Further data on student choice is presented in section five of this report.

Looking at and Responding to Art

Teacher template, visual arts: Q6
Children in my classes have opportunities to look at and respond to art in the natural and living environment.
(Tick box: yes/no)

A total of 446 teachers (81.1%) reported that children in their classes have opportunities to look at and respond to art in the natural and living environment. Teachers were asked to elaborate on their response, by providing an example, in the following question:

Teacher Template, visual arts: Q7
The following is one example of a learning opportunity which I provide for children to look at and respond to art in the natural and living environment. (Blank text box)

In all, 559 teachers responded to this question, representing a 77.7% response rate out of 719. The two most frequently reported examples are presented in Table 3.1. Of the teachers who responded, 465 (83.3%) referred to opportunities they provide for children to look at and respond to art in the environment, either by bringing elements of the environment into the classroom, or by studying the environment outdoors. Table 3.1 shows that many teachers reported doing both.

Table 3.1: Opportunities to look at and respond to art in the natural and living environment		
Strategies	Teachers	
	n	%
Looking and responding to art in the environment: Indoors	360	64.4
Looking and responding to art in the environment: Outdoors	287	51.3

n=559

1. Looking at and responding to art in the environment: Indoors (64.4%)

Teachers reported providing opportunities for children to study the outdoors from inside their school or classroom. Their descriptions focused mostly on using the environment to support children's awareness of the **visual arts strands,** as well as their awareness of the **visual arts elements**.

1a. Using the environment to learn about the visual arts strands

Teachers referred to each of the six visual arts strands; drawing, paint and colour, print, clay, construction, fabric and fibre, in their response to Q7. Raw data showing the number (and percentage) of teachers who referred to the visual arts strands in their responses are presented in Table 3.2, beginning with the most frequently cited strand.

Table 3.2: Looking and responding to the natural environment using visual arts strands		
Visual arts strands	Teachers	
	n	%
Drawing	128	22.9
Painting	55	9.8
Printing	30	5.4
Clay	7	1.2
Construction	6	1.0
Fabric and fibre	4	0.7

n=559

The strand which teachers reported most frequently using in looking at and responding to the natural environment, was *drawing* or *sketching*. Teachers reported encouraging children to draw from memory e.g., *Drawing the shops and streets*, to draw from direct observation outside e.g., *Using the view of the outdoors from the classroom,* and also to draw elements of nature inside e.g., *Drawing still life pictures of flowers and plants*. Teachers' references to painting ranged from specific objects e.g., *Painting stones*, to collections of objects in the natural environment, *Painting of local scenes*. Most teachers who mentioned printing in their response identified elements of the tree as the stimulus e.g., *Look at texture of bark, leaf-printing, designs of veins*. Trees also provided a stimulus for children's use of clay e.g., *Looking at tree shapes, we made clay leaves*. Teachers referred to construction work using recycled materials e.g., *Looking at the local church & construction of same using old thread and nails*. Finally, teachers noted children's use of fabric to replicate an outdoor scene e.g., *To look at and respond to elements in leaves, trees, the environment, using samples … in own home environment e.g. fabric*. The findings in Table 3.2 echo earlier findings by showing a preference for 2D work by teachers (drawing, painting, printing), in contrast to the children's enthusiasm for clay and *making stuff*.

1b. Using the environment to learn about the visual elements

The Visual Arts Curriculum identifies seven visual elements as follows; line, shape, form, colour and tone, pattern and rhythm, texture and spatial organisation. In their responses to Q7, teachers referred to all seven elements. Raw data showing the number (and percentage) of teachers who mentioned the elements of art in their response are presented in Table 3.3, beginning with the most frequently cited element.

Table 3.3: Looking and responding to the elements of art in the natural environment		
Visual elements	Teachers	
	n	%
Colour and tone	69	12.3
Line	43	7.7
Shape	42	7.5
Texture	30	5.4
Pattern & rhythm	28	5.0
Form	16	2.8
Spatial organisation	2	0.3

n=559

Colour was the most frequently mentioned visual element by teachers. Colour was often associated with studies of the seasons e.g., *Observing colour in different seasons.* Line was the second most frequently mentioned of the elements e.g., *Lines in the environment, identifying natural lines of various types in the school playing fields.* Shape was often associated with trees. A total of 142 teachers (25.4%) mentioned trees in their response e.g., *Shape found in trees through the movement of the branches/leaves.* Texture was associated with a tree's leaves and its bark e.g., *Discussion of texture of tree barks and leaves.* Pattern was also linked with the plant environment e.g., *Exploration of patterns in plants.* Teachers reported looking for form in the built and

natural environment. Finally, the two teachers who mentioned spatial organization in their response referred to use of the *school garden- its plants and animals.*

2. Looking at and responding to art in the environment: Outdoors (51.3%)

In total, 287 teachers (51.3%) reported taking their children outdoors to study their local environment. A total of 222 teachers (39.7%) focused on the natural environment in their responses. A total of 95 teachers (16.9%) stated that they take their children on nature walks e.g., *Nature walk in Autumn, collected leaves and leaf rubbings.* The trails which teachers reported using for their nature walks with children ranged from within the school grounds, to sites outside the school locality. One teacher reported, *Taking a nature trip to the field adjacent to the school to look at trees, wild flowers, bushes and walls,* while another reported, *Taking a visit to Bull Island to observe the natural habitat.* Teachers also reported visiting rivers and seashores e.g., *We go down to the river and draw what we see and we take a beach walk, looking at collecting shells and pebbles.* Teachers explained their use of the school grounds and adjacent gardens e.g., *Examining nature in the school grounds and using a nature trail to develop awareness of these surroundings, going on nature walks to the town park.*

A further 65 teachers (11.6%) reported taking children outdoors to study the built environment e.g., *Going around Cork City centre looking at various architecture in the built environment.* Teachers noted their use of the outdoors, *To study buildings old and new.* The range of buildings identified by teachers primarily included *the school building*, a range of different *monuments* and *churches.* Teachers reported, *Discussing the structure of different buildings [with children]* and *the shapes of buildings.* Teachers also reported looking at and responding to *streets* and *bridges* and *stone walls* in the built environment with their classes.

In addition to the data presented above, 25 teachers (4.4%) reported engaging children with an artist, an *artist in residence*, or a *local artist*.

Artists and the environment

> **Teacher Template, visual arts: Q8**
> **Children in my class(es) have opportunities to see how artists, craftspeople and designers work with(in), and in response to, their environments.**
> **(Tick box: yes/no)**

In total, 183 teachers (33.3%) reported that children in their classes have opportunities to see how artists, craftspeople and designers work with(in), and in response to, their environments. Children in the case study schools, who had met with or spoken with an artist, spoke excitedly about the experience.

> **Children's interview, visual arts**
> **Question: What was your (least/) favourite part of visual arts?**
> **Question: What did you like most/least about what you did in visual arts?**
> **Question: What was the most exciting part of visual arts for you? Why?**

Meeting an artist

Children in three schools told us with excitement that they had met a local artist either within the school or in a local gallery. A 4th class child in St. Edward's said he *went to the Model Arts Centre about three weeks ago.* His friend explained, *The other day we were doing our project on our favourite building, and we picked the Sligo Library. We went to the Library and we met this artist that painted the fresco and his name was*

Bernard McDonagh. It was excellent. A third class child from Scoil Naomh Muire told us he *went to visit Robert in his workshop and spent a lot of time playing with the clay.* A 5th class child in St. Bernadette's explained, *Mary Aragon came to visit us. She does the images for children's books. We got to meet her and it was great.*

The following question in the teacher template collected data on teachers' use of strategies to enable children learn about how artists, craftspeople, and designers work within, and in response to, their environment.

> **Teacher Template, visual arts: Q9**
> **The extent to which I use certain strategies to enable children in my class(es) to learn about how artists, craftspeople and designers work with(in), and in response to, their environments is as follows (Rating scale: 1-4)**

Findings from this question are presented in Table 3.2 in order based on mean scores of frequency, across the four points on the frequency scale reported by teachers. Table 3.2 shows that the most frequently used strategies reported by teachers are *school display* followed by *programmes on television and video, trips to relevant centres, artists in residence* and *on-line galleries or CD-ROMs.* While 316 teachers (57.4%) reported using school display as a strategy, *once or twice a month* or more frequently, 193 teachers (35.1%) reported that they *hardly ever/ never* use this strategy. Likewise, teachers reported very little use of the other strategies, as Table 3.4 shows.

Table 3.4: Use of strategies to teach how artists work within their environment								
Class teacher	hardly ever/ never		once or twice a month		at least a few times a week		Total	
	n	%	n	%	n	%	n	%
School displays	193	35.1	181	32.9	135	24.5	509	92.5
Programmes on television and video	334	60.7	138	25.1	24	4.4	496	90.2
Trips to relevant centres	405	73.6	67	12.2	33	6	505	91.8
Artists in residence	424	77.1	47	8.5	24	4.4	495	90
On-line galleries or CD-ROMs	417	75.8	66	12	15	2.7	498	90.5

n=495–509

It is interesting to note that despite children's enthusiasm for learning about artists, 77.1% of teachers reported *hardly ever or never* having an artist in residence. A total of 75.8% of teachers reported *hardly ever/ never* using ICT to teach about how artists work within their environment, pre-empting findings later in this section which show limited use of ICT in visual arts.

VISUAL ARTS: TEACHNG APPROACHES AND METHODS

Organisational setting

Teacher template, visual arts: Q11
The extent to which I use the following organisational settings in the teaching of Visual arts is as follows
(Rating scale: 1-4

Figure 3.3 presents teachers' frequency of use of four organisational settings in visual arts. The four organisational settings are presented in

order, beginning with individual work, which received the highest mean score across the four points on the frequency scale.

Figure 3.3: Use of organisational settings for visual arts
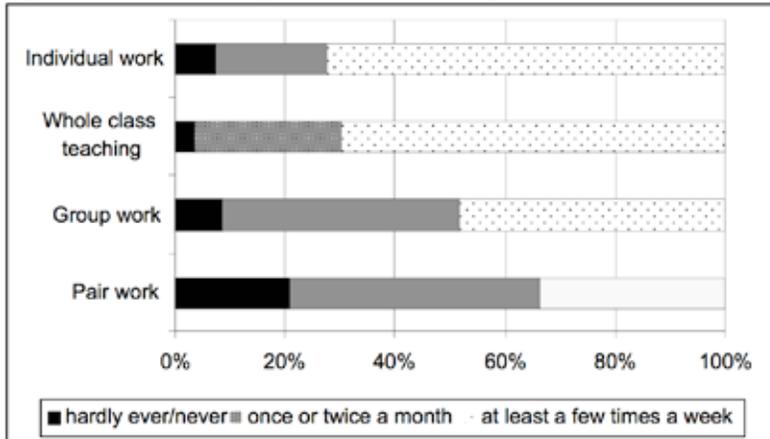
n=719

Figure 3.3 shows that individual work is the most frequently reported organisational setting used by teachers. A total of 384 teachers (72.3%) reported that they used individual work *at least a few times a week*. Whole class teaching is the second most frequently used organisational setting reported by teachers in visual arts, with 371 (69.7%) teachers reporting use of whole class teaching *at least a few times a week*. The results also show that as many as 350 teachers (66.4%) reported using pairwork just *once or twice a month* or *hardly ever/never,* while 277 teachers (51.6%) reported using group work in visual arts just *once or twice a month* or *hardly ever/never.*

These findings are somewhat disturbing given the recommendation in the Visual Arts Teacher Guidelines that, *The teacher should allow for both individual and collaborative work where children can share ideas* (p.34). Collaborative learning is one of the 15 principles of the Primary School Curriculum which notes that, *Working collaboratively provides learning opportunities that have particular advantages* (Introduction, p. 17). These findings suggest that children have limited opportunities to develop socially and personally though groupwork and pairwork,

including an appreciation of the benefits to be gained from co-operative effort.

There are very slight differences to be found in the extent to which teachers from infants/junior classes and middle/senior classes use different organisational settings. Comparisons are presented in Figure 3.4 for teachers' reported use of pair work, as this organisational setting reveals the greatest differences.

Figure 3.4: Use of organisational settings in visual arts: Infants to second and third to sixth
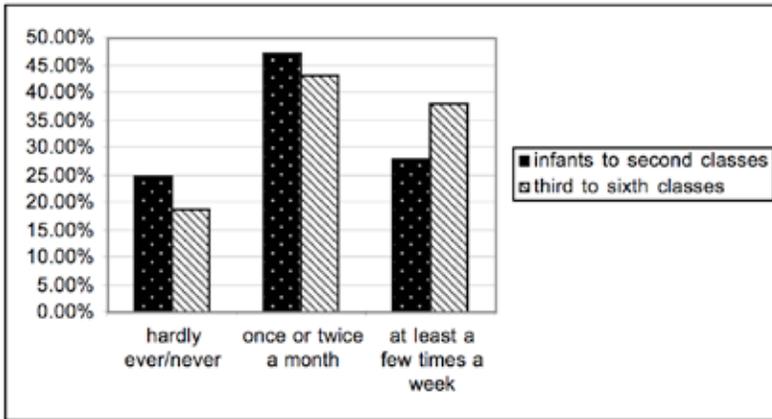
Figure 3.4 shows that 70 teachers of infants/junior classes (representing 27.9% of teachers in this category who responded) reported using pair work at least a few times a week, compared with 115 teachers (38%) of middle/senior classes. While these findings may reflect children's stages of inter and intrapersonal development, they highlight the limited use of pairwork, particularly by teachers of children in junior classes.

> **Teacher template, visual arts: Q12**
> **Children in my class(es) have opportunities to discuss and talk about their own and others' work in Visual arts.**
> **(Tick box: yes/no)**

Despite the limited use of pairwork and groupwork in visual arts

reported in the previous question, 512 teachers (93.1%) reported that children in their class(es) have opportunities to discuss and talk about their own and others' work in visual arts.

> **Teacher template, visual arts: Q13**
> **Children in my class(es) have opportunities to experience the Visual arts through theme-based activities which integrate the Visual Arts Curriculum with other subjects**
> **(rating scale: 1-4)**

Teachers were asked to rate the frequency of opportunities their children have to experience visual arts through theme-based activities which integrate the Visual Arts Curriculum with other subjects. Findings are presented in Figure 3.5.

Figure 3.5: Opportunities to experience visual arts through theme-based activities
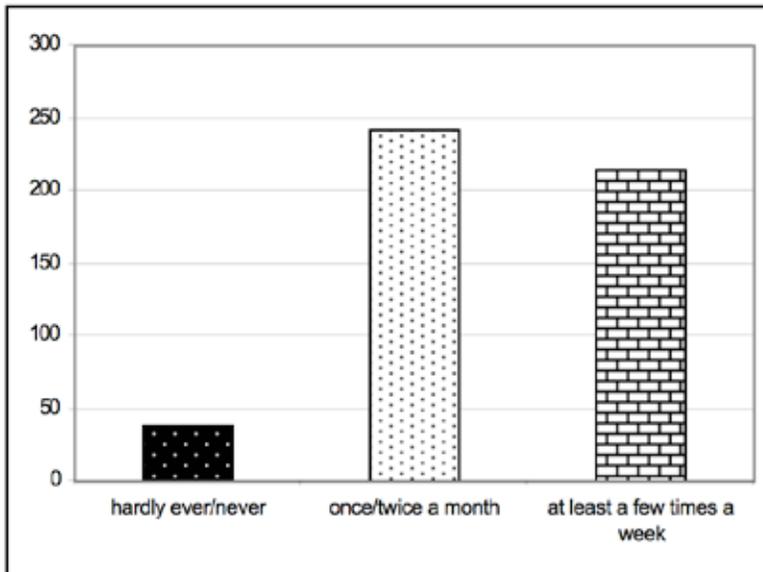
n=493

Figure 3.5 shows that 214 teachers (43.4%) reported providing opportunities for children to experience the visual arts through theme-based activities *at least a few times a week*. Less than 10% of

teachers (7.7%) reported that children *hardly ever/never* have these opportunities, while the remaining 48.9% of teachers reported providing these opportunities *once/twice a month*. These figures suggest that teachers have made progress in using thematic or interdisciplinary approaches to learning. The Visual Arts Teacher Guidelines recommend, *A balance of integrated and single-subject teaching [in the visual arts]* (p.35). These findings also suggest that this practice has yet to become mainstream for many class teachers.

Some small differences can be found in the extent to which teachers from infants/junior classes and middle/senior classes use theme-based activities in visual arts (Figure 3.6).

Figure 3.6: Opportunities to experience visual arts through theme-based activities
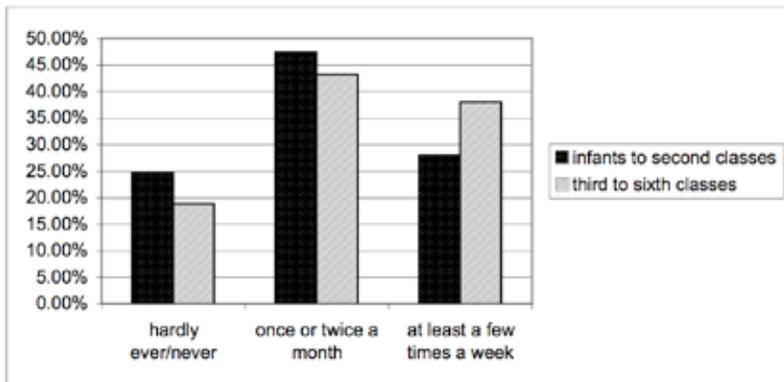
n=246-278

Figure 3.6 shows that 123 teachers of infants/junior classes (50.0% of teachers in this category who responded) reported using theme-based activities, while the figure is 102 teachers (36.7%) from among those who teach middle/senior classes. This finding suggests that there may be a reduction in curriculum integration as children move up the school, consistent with the curriculum which notes that interdisciplinary or thematic learning is particularly important at

infant level, and should be balanced with subject-specific learning, particularly in the senior classes (Visual Arts Teacher Guidelines, p. 35).

ICT

As for English, teachers were asked to respond to one of two questions concerning their use of ICT in visual arts. Q14a asked teachers to list the ways they have used ICT and to specify the type of ICT they used, while Q14b asked teachers to explain why they have not used ICT.

> **Teacher Template, visual arts: Q14a**
> **I have used ICT to support the Visual Arts Curriculum in the following ways:**
> **i) List the ways you have used ICT (Blank text box)**
> **ii) Specify the type of ICT used (software, Internet, peripheral devices, etc.)**
> **(Blank text box)**

A total of 247 teachers responded to 14a, representing a 34.4% response out of 719. Analysis of teachers' responses to part i) of this question identified five ways in which teachers use ICT in the Visual Arts Curriculum. These five ways teachers reported using ICT are presented in Table 3.5.

Table 3.5: Ways teachers use ICT in visual arts		
Activity	Teachers	
	n	%
Looking at art and artists' work on the Internet	67	27.1
Design and print of cards, posters, covers, etc.	55	22.2
Paint and colour	50	20.2
Drawing	41	16.6
Unspecified software	21	8.5

n=247

Table 3.5 shows that in their responses, some teachers cited strands of the curriculum where ICT was used, e.g. drawing, paint and colour, while others focused on describing the purpose of their use of ICT e.g., *for looking at art and artists work*. As already noted in responses to this question for English, this variation in response from a curriculum focus to an ICT focus may indicate that teachers were unclear on how the term *ways* was to be interpreted in the question, and that the question might have been better phrased for teachers. The four most frequently reported ways teachers use ICT visual arts are described in the discussion which follows.

1. Looking at art (27.1%)

Teachers reported that their most frequent use of ICT was for *looking at art*, in the main looking at *pictures* and *online galleries*. The majority of teachers reported that they looked at art on the *Internet*, and some also mentioned that they used software *programmes produced by art galleries*. Teachers explained that they used the *Internet to look up about different artists, their life and works.* One teacher commented on using the Internet, *for viewing major art works and providing art experience.* Responding to art was included in some responses, as described by one teacher, *looking/responding to famous artists work on line.* Others described what they looked at, *i.e. famous paintings, sculptures, lives of the artists.* Some teachers were more specific in their response noting that they used *Internet sites, e.g. to show Van Gogh's paintings etc* and *for looking at the work of the Impressionist period*.

2. Design and print (22.2%)

Making various designs using the computer was the second most commonly reported use of ICT in visual arts. Teachers mentioned that they used ICT for *designing cards, banners, posters etc.* and *designing covers for stories.* This evidence that teachers were integrating ICT use in visual arts with other curriculum areas such as written work was

reflected in a number of responses, *e.g. designing simple posters, creating titles, headings for pieces of work* and creating *boards, displays, titles. Making greeting cards* and *Christmas cards, borders and design* were also identified as uses by a number of teachers. The potential of ICT for *changing layout and colour in a design* using ICT was commented on by a number of teachers while other teachers noted that the ability to change *visual layout of text and creative design of borders* was useful *for making attractive posters and headings for projects.*

3. Paint and colour (20.2%)

Paint and colour was reported by teachers as the third most frequent use of ICT in the Visual Arts Curriculum. The majority of respondents did not elaborate on their response. Some teachers mentioned that they used the computer paint programme: *ag 'peintéail' ar an ríomhaire* [agus] *an obair a phriontáil.* One teacher commented that s/he used *Paint Shop Pro- a little.*

4. Drawing (16.6%)

The majority of teachers who mentioned that they used ICT for drawing did not elaborate further on this use. Some teachers commented that they used the computer *draw tools* for *drawing shape pictures.* One teacher mentioned that children *experiment drawing using the mouse* while another teacher described *free composition* as the main use.

The next part of Q14a asked teachers to specify the type of ICT used in these different ways in the Visual Arts Curriculum. A total of 224 teachers responded, representing a 31.2% response out of 719. Responses focused on the type of computer application used. A total of 10 teachers reported that they used a digital camera, and seven mentioned that they used a scanner. Only three teachers reported that they used a printer. The low reported use of peripheral devices,

especially the printer may be due to teachers' understanding of the term ICT as relating to computer applications only. Teachers' responses are presented in Table 3.6 below.

Table 3.6: Types of ICT used to support the Visual Arts Curriculum		
ICT used	Teachers	
	n	%
Painting software	59	26.3
Unspecified software	58	25.8
Internet	55	24.5
Clip art software	25	11.1
Word art software	13	5.8
Drawing	12	5.4

n=224

Table 3.6 identifies the six most frequently reported *types* of ICT used in the Visual Arts Curriculum by teachers. The first four of these are discussed below.

1. Paint (26.3%)

Teachers' identified the computer paint programme as the type of ICT most frequently used to support the Visual Arts Curriculum. A few teachers also named or listed some common image editing programme(s) used.

2. Unspecified software (26.8%)

Some 58 teachers mentioned that they used *software* without further specifying which software was used or what it was used for.

3. Internet (25.5%)

Teachers identified the *Internet* as the third most common type of ICT they used to support visual arts. The majority of teachers did

not specify which web sites they used. Some teachers named websites such as the *website of the National Gallery.*

4. Clip Art (11.1%)

Teachers who responded that they used *clip art* to support the Visual Arts Curriculum did not elaborate on this answer.

> **Teacher Template, visual arts: Q14b**
> **The main reason why I have not used ICT to support children's learning in Visual arts is as follows:**
> **(Blank text box)**

In all, 397 teachers responded to this question, representing a 59.1% response out of 719. Analysis of teachers' responses to this question identified five reasons why teachers have not used ICT in the Visual Arts Curriculum (Table 3.7). The four most frequently reported reasons are discussed following Table 3.7.

Table 3.7: Reasons why teachers reported not using ICT in visual arts		
Resources: suitability and availability	171	40.0
Time constraints	97	24.4
Number of computers accessible or available	57	14.3
Classroom management issues with ICT	47	11.8
Teacher confidence and skills	40	10.0

n=397

1. Resources (40%)

Teachers identified lack of resources, such as software and the Internet as the main reason why they had not used ICT in the visual arts (Table 3.7). Teachers reported on their own unfamiliarity with suitable resources, *don't know of any art software or have not heard of any interesting art software before.* Teachers typically commented that they

were *not aware of any suitable software or specific programmes in this area.*
Teachers also noted the unavailability of the Internet as a constraint in
using ICT in visual arts.

2. Time constraints (24.4%)

Lack of time was the second most frequently cited reason why teachers
had not used ICT in visual arts. The majority of teachers who cited lack
of time as an impediment to using ICT did not elaborate on their
response. Teachers also cited the lack of time for planning and finding
resources noting, e.g., *I haven't had time to investigate relevant websites or
software that would be applicable.*

3. Number of computers (14.3%)

The lack of available computers was the third most frequently cited
reason for not using ICT in the visual arts (Figure 3.9). *Lack of
availability* was cited frequently, *níl sé ar fáil*. Teachers who had access *to
one computer in the classroom* considered this level of access *insufficient* for
visual arts. One teacher explained that with *one computer in the classroom,*
[it was] *difficult for children to see.* A number of teachers commented on
lack of access to the computer lab for children.

4. Classroom management (11.8%)

Teachers' identified *organisational difficulties* as the fourth greatest reason
why they had not used ICT in visual arts. Teachers reported that they
did not know how to organise the classroom for ICT and had not
developed strategies for managing ICT within the classroom. A number
of teachers reported that this *difficulty lies in multiple class situation* and
with four classes in one room it is just not possible, while others related that it
was difficult to organise due to lack of *space* in the classroom. The pupil
computer ratio was mentioned frequently as a problem, e.g., *not feasible
with one computer and 25 + children in the classroom.* One teacher explained
that the class size [was] *too large to show art software.*

It is worth noting that 10% of teachers identified limitations in their own skills and competence as an impediment to their use of ICT (the fifth reported reason for not using ICT in the Visual Arts Curriculum). The four challenges to ICT use in visual arts discussed here were also the four most frequently cited challenges to ICT use in English and mathematics.

VISUAL ARTS: ASSESSMENT

Teacher Template, visual arts: Q16
The extent to which I assess children's progress in Visual arts in different ways is as follows:
(Rating scale: 1-4)

As noted in the discussion of responses to this question for the English Curriculum, use of the 4-point rating scale yielded some ambiguous results for the least-frequently used assessment tools such as standardised tests. For visual arts, teachers were asked to indicate how frequently they used just four assessment tools. Findings are presented in Table 3.8.

Table 3.8: Use of Assessment tools in the Visual Arts Curriculum

Class teacher	hardly ever/ never		once or twice a month		at least a few times a week		Total	
	n	%	n	%	n	%	n	%
Teacher observation	6	1.2	116	22.6	391	76.2	513	100
Work samples, port-folios and projects	70	13.9	220	43.7	213	42.3	503	100
Teacher-designed tasks and tests	93	18.9	185	37.6	214	43.5	492	100
Curriculum profiles	304	74.5	83	20.3	21	5.1	408	100

n=408–513

Table 3.8 shows the frequency with which teachers reported using the six assessment tools. Items are presented in order of frequency using mean scores to rank items, beginning with teacher observation, followed by work samples, portfolios and projects, teacher designed tests and tasks and curriculum profiles. It is interesting to note that 70 teachers (13.9%) reported *hardly ever/never* using work samples, portfolios and projects in their assessment of children's work in visual arts, compared with 93 (18.9%) for teacher-designed tests and tasks. The equivalent figure for curriculum profiles in visual arts 304 (74.5%), is not surprising given that no published profiles are available for the Visual Arts Curriculum.

There are some slight differences in the extent to which teachers from infants/junior classes and middle/senior classes reported using different assessment tools. The greatest differences can be seen in teachers' reported use of work samples, portfolios and projects. The results for this comparison are presented in Figure 3.7

Figure 3.7: Assessing children's progress in visual arts using work samples, portfolios, projects
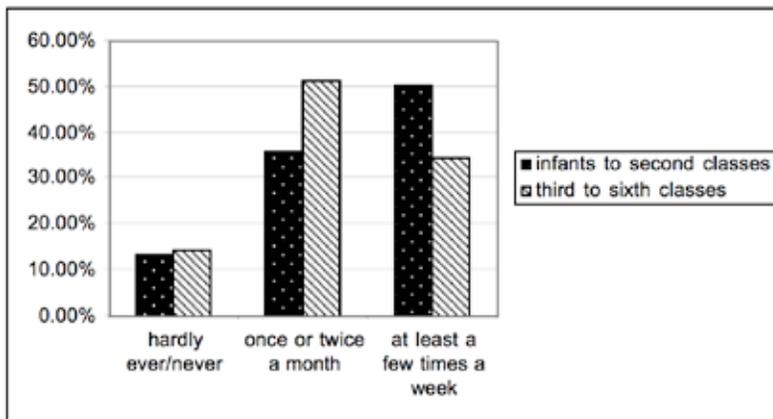
n=123

Figure 3.7 shows that 123 teachers teaching in infants/junior classes (representing 50.6% of all teachers in this category who responded) reported using work samples, portfolios and projects *once or twice a*

month, compared with 99 teachers (34.5%) who teach middle/senior classes. In a follow-up question (Q17, below), teachers were asked to identify the main challenges they experienced in assessing children's learning.

> **Teacher Template, visual arts: Q17**
>
> **In my experience, the main challenge (if any) in assessing children's learning in Visual arts is:**
>
> *The response was sought using an open response box with 'challenge' in one column and 'reason(s)' in the other column.*

In total, 479 teachers responded to this question, representing a 66.6% response rate out of 719, compared with 72.1% for the same question in English. Of the 579 teachers who responded to this question, 13 (2.2%) reported no challenge in assessing children's learning in visual arts, e.g. *níl fadhb agam anseo* (I have no problem with this). Analysis of data identified three key challenges experienced by teachers in assessing children's learning in visual arts (Table 3.9):

Table 3.9: Challenges in assessing children's learning in visual arts	Teachers	
Challenge	n	%
Appropriateness of assessment	182	37.9
Time	129	26.9
Teachers' knowledge of visual arts assessment	59	12.3

n=479

1. Appropriateness of assessment in visual arts (37.9%)

Some 182 teachers questioned both the *value* and *validity* of assessing children's progress in visual arts. Compared with other subjects, one teacher noted that *assessing [visual arts] is not a priority versus other areas.* Teachers explained that there was *no need to assess [visual arts] because*

process is most important. As one teacher noted, *It is great they [children] have an area which I don't criticise!* Teachers suggested *it's [visual art] not really quantifiable* – teachers noted that there was *no accurate way of assessing visual arts* and some claimed, *It [visual arts] can't be standardised.* The reasons teachers used to explain why assessment in visual arts is neither necessary, nor possible, focused on their belief that, *Art is an individual and personal activity.* Teachers explained that, *Art is very subjective - it is very hard to write down an assessment of a child's artistic ability,* although one teacher suggested that children's development of skills in manipulating visual arts tools could be assessed. *I feel that only their skills development can be assessed e.g. how well they can use scissors etc.* Ultimately, teachers queried how to assess visual arts *in a constructive way that does not diminish the enjoyment that children derive from this subject.*

2. Time (26.9%)

Some 84 teachers cited *time* as a challenge in assessing children's progress in visual arts. Two elements of time were identified: time for individual children and time for each subject. The first of these was linked with class size, e.g., *Time is an issue, having a big class with no assistant* and *not enough time for each pupil.* Teachers noted that because of the number of children in the class, there was *not enough time (in classroom situation) available to really treat each child as an individual and develop their various strengths.* Teachers further explained that there was *not enough time to properly discuss and assess each child's experience of visual art.* The second element of time reported on by teachers, concerned time for visual arts in the context of 10 other curriculum subjects, as well as religious education. Teachers noted the challenge of *providing time for all subjects* and the *overloading of the curriculum for one teacher.*

3. Teachers' knowledge of visual arts assessment (12.3%)

Only 39 teachers (8.1%) cited their own limited knowledge of visual arts and of assessment, and their low confidence in visual arts assessment as key challenges. Teachers noted that they were still learning about visual arts as a curriculum subject, *My personal knowledge of visual arts is still limited*. Thus, teachers described their *inability to assess [visual arts] - I myself do not have a good knowledge of visual arts*. Teachers were unsure of what and how to assess in visual arts. One teacher asked, *what am I assessing? My idea of their ability or their end product or both?* Another teacher asked *how do I assess a piece of work?* Teachers expressed confusion regarding *knowing how to interpret what you're seeing*. The challenge of *deciding what is good or bad art* was noted by teachers who explained that they were *not familiar with specific assessment criteria in relation to visual arts*. Some teachers noted that they *need guidelines for assessment* given the *lack of a visual arts assessment system*. Following from teachers' reports of limited knowledge of visual arts and assessment, it is little surprise they reported that their *complete lack of expertise in this area* resulted in a *lack of confidence in assessing children's work*. One teacher candidly responded, *I don't feel qualified to assess work*.

VISUAL ARTS: IMPACT ON CHILDREN'S LEARNING

> **Teacher Template, visual arts: Q19**
> **In my experience, I think the Primary School Curriculum: Visual arts (1999) is impacting on children's learning in the following ways. Please list in order of importance, with the most significant impact as number one. (Blank text box)**

613 teachers (85.2%) responded to this question. As noted in the English section, some teachers focused on features of the curriculum that had the greatest impact on children, while others focused on the child's learning, in their responses to this question. A total of three

teachers (0.5%) responded that they were unable to implement the Visual Arts Curriculum due to lack of resources and class size. Analysis of the remaining responses identified seven key impacts of the Visual Arts Curriculum on children's learning (Table 3.10). A discussion of the four most significant impacts follows Table 3.10.

Table 3.10: Impact of the Visual Arts Curriculum on children's learning		
Impact	Teachers	
	n	%
Breadth of child's visual arts experience	257	41.9
Greater appreciation of art	255	41.6
Self-expression	130	21.2
Success/self-confidence	124	20.2
Enjoyment	92	15.0
Integration of visual arts in other subjects	61	10.1
Language development	48	7.8

n=613

1. Breadth of child's visual arts experience (41.9%)

A total of 257 teachers (42%) identified *réimse leathan san ealaíon (breadth of art experience)* as the greatest impact of the Visual Arts Curriculum on children's learning. Teachers commented that the visual arts curriculum has enabled them to *widen the range of activities I employ in art class. Thus children are benefiting from a wider curriculum.* Teachers explained that *as it incorporates using lots of different strand areas, the children use lots of different materials.* A number of teachers cited progression beyond the two traditional visual arts activities, as one key impact of the curriculum; *it encourages children to broaden their knowledge and experience of art i.e. moving away from painting and drawing and introducing fabric and fibre, etc.* The broad Visual Arts Curriculum was clearly associated with a broad visual arts experience – one that provided e.g., *more freedom to explore using junk materials.*

2. Appreciation of art (41.6%)

Art appreciation, *a sense of art intelligence*, was identified by 255 teachers as a significant impact of the Visual Arts Curriculum on children's learning. Art appreciation was described as an outcome of the Visual Arts Curriculum, which *develops a child's ability in other ways, rather than just academic subjects e.g. English*. One teacher described the Visual Arts Curriculum as *embracing multiple intelligences, with equal importance for all children's abilities*. Another explained,

> *They begin to see art, not as 'who is the best, who has the nicest painting' but instead as a creative process whereby everyone is given a chance and everyone's work is appreciated and admired, and they learn to appreciate one another's art.*

Respondents credited the Visual Arts Curriculum with *increasing the children's visual sensitivity to the world around them and improving their creativity*. As one teacher explained, *ultimately it [Visual Arts Curriculum] has an impact on the development of their [children's] senses and leads to a greater appreciation of their environment*. These findings echo two of the eight broad aims of arts education, in the Primary School Curriculum.

3. Self-expression (21.2%)

Just over one-fifth of teachers (130) identified children's self-expression as the third most significant impact of the Visual Arts Curriculum on children's learning. The breadth of the Visual Arts Curriculum – strands and teaching methods, was closely linked with *a wider diversity of expression* [for children] and *freedom of expression*. As one teacher explained, *it [Visual Arts Curriculum] allows children the opportunity to express themselves using different artistic methods*. The Visual Arts Curriculum was credited with *improving children's ability to express their ideas more clearly, using different media*. Respondents compared

their experience with the Visual Arts Curriculum to previous experiences with art in the primary school and commented that *the Visual arts [Curriculum] allows children greater freedom of expression than ever before*. The process of self-expression through the Visual Arts Curriculum was evident, teachers explained, in the *departure from the model and mass-produced approach to one of individual, creative expression*. As one teacher noted, *children have opportunities for self-expression and create unique pieces rather than 20 identical pieces.*

4. Success/self-confidence (20.2%)

A total of 124 teachers identified *enhanced self-esteem* as a further impact of the Visual Arts Curriculum on children's learning. This finding – increased success and self-confidence for children with the visual arts – is very similar to findings in English (Table 2.14). Teachers attributed children's feelings of success in visual arts and increased self-confidence with the high value that children attributed to their work in visual arts. One teacher described this increased self-esteem as *the confidence that arises from knowing that everything created is worthwhile and valuable*. The Visual Arts Curriculum was described as a *confidence booster*, and was credited by respondents with providing opportunities for children to *develop a sense of pride in the efforts they achieve*. Respondents noted the importance of developing confidence in one's own work, over time. As one teacher explained; *children are gaining confidence in creating a piece of art. They're coming to the realisation that 'Perhaps I'm not good at drawing, but I'm great at art'*. Respondents also highlighted the inclusiveness of the Visual Arts Curriculum and its relevance for all children. One teacher noted *the [child's] sense of achievement [with the Visual Arts Curriculum] i.e., pride on seeing finished work especially by weaker children*. Teachers explained that, *[The Visual Arts Curriculum] gives non-academic children a chance to achieve to a high standard in a different way*. Teachers also noted that the Visual Arts Curriculum *encourages children to experiment and have a go.*

Respondents commented that, [Children are] *more prepared to try out different things and are more at ease with experimentation… It's making them less afraid to take a chance, to use their imaginations and be creative.*

It is interesting to note that in addition to these four findings, 15% of teachers identified enjoyment as a significant impact of the Visual Arts Curriculum on children's learning. A further 10% of teachers identified *integration of visual arts with other subjects* as a significant impact of the Visual Arts Curriculum on children's learning.

VISUAL ARTS: INVOLVEMENT OF PARENTS

Teacher Template, visual arts: Q18
I involve parents/guardians in supporting their children's progress in Visual arts by:
Please list activities in order of importance, with the most significant as number one. (Blank text box)

In all, 574 teachers responded to this question representing a 79.8% response rate out of 719. As noted in the previous section, teachers' responses focused less on the ways they involve parents e.g., *sending home children's work in visual arts,* and more on the ways they hoped parents/guardians would support their children's learning, e.g. encouraging support for entering art competitions. Findings presented in Table 3.11 identify the five ways teachers reported involving parents in their children's learning in visual arts. The findings show that teachers did not report communicating with parents regarding their child's progress and achievement in visual arts.

Table 3.11: Involving parents/guardians in children's learning with the Visual Arts Curriculum		
Involvement of parents	Teachers	
	n	%
Presenting displays of children's work	329	57.3
Sending home children's work in visual arts	182	31.7
Requesting visual arts resources	124	21.6
Encouraging support for children's visits to art exhibitions	41	7.1
Encouraging support for entering art competitions	34	5.9

n=574

The four most frequently reported ways teachers involve parents in their children's progress in visual arts, are discussed below.

1. Presenting displays of children's work (57.3%)

A total of 329 teachers reported involving parents in supporting their children's progress in visual arts, through displays of children's work. Two types of display were identified: *an individual child's work,* and *class displays.* Teachers noted the importance of *displaying the children's work where it can be viewed and appreciated by the parents.* Three sites for displaying children's artwork were identified; in the home, in the classroom/school and in the local church. Teachers reported encouraging parents to *display children's work in their own homes.* Teachers also reported *displaying children's work in the classroom.* Infant teachers noted that *most parents visit [the classroom] every day* while teachers of older children referred to periodic visits e.g., *I display children's artwork for PT [parent-teacher] meetings twice a year or parents come in to view the art displays at Christmas.* Teachers noted that children's work is also displayed in *all the public areas of the school.* Places in the school identified by teachers *where parents can see the artwork* included the *school corridors*, the *school walls* and the *assembly hall.* The most frequently identified sites for displaying children's

artwork outside the school was the local church; *art work is often displayed in the church, we display artwork for first confession, holy communion etc.*

2. Sending home children's work in visual arts (31.7%)

Some 182 teachers reported involving parents in their children's visual arts progress by *sending home children's artwork.* As one teacher reported, *Tugann na páistí a gcuid oibre abhaile* (Children take their work home). The type of artwork teachers reported sending home to parents ranged from *sending all copies with drawings home in folders, to sending home children's art portfolios.* A total of 28 teachers (4.8%) reported sending home children's portfolios to parents. A number of purposes in sending home children's artwork to parents were identified. These included

• to show/to see [children's work in visual arts]

• to discuss [children's work in visual arts]

• to appraise [children's work in visual arts]

• to give feedback [children's work in visual arts]

Teachers reported sending home children's work annually, on a seasonal basis e.g., *Taking art work home for seasons and special occasions, Christmas, Mother's Day* annually, and monthly, e.g., *Sending home children's work in art at end of month.*

3. Requesting visual arts resources (21.6%)

Just over one-fifth of teachers (124) reported involving parents in their children's visual arts education by requesting *assistance in providing art materials.* While six teachers (1%) reported asking parents to ensure children have access to art materials for use at home e.g., *encourage parents to have a supply of paper, markers, crayons, glue, scissors*

available to children at home, the remainder reported *getting materials brought in from home [to the school].* Teachers referred to parents' involvement in supplying the class with *art materials (money),* as well as *gathering old materials.* For example teachers reported *asking parents to collect useful items like toilet roll holders, egg cartons.* No information was provided on how teachers ask or invite this involvement by parents.

4. Encouraging support for children's visits to art exhibitions (7.1%)

Just 41 teachers reported involving parents in art exhibitions outside the school organised by teachers or by parents. Three forms of parental support for teacher-organised visits to art exhibitions were identified, including *Getting permission [for children] to visit museums,* and, *Fund[ing] day-trips to craft exhibitions.* Parental involvement in *Accompanying school tours to galleries* was the most frequently mentioned type of support by parents for teacher-organised visits to art exhibitions. Teachers explained, *Parents come with us to galleries, museums, exhibitions, to observe craftspeople etc.* Teachers also reported encouraging parents to bring children to art exhibits themselves, e.g., *Encouraging them [parents] to bring children to art exhibitions in local library and gallery in Galway.* Another teacher reported asking parents *to bring their children to library exhibits.*

While *giving homework* was reported as a key means of involving parents in children's learning in English and mathematics, only 3.6% of teachers reported giving homework in visual arts. Similarly, although *organising teacher/parent communications* was reported by almost 30% of teachers in mathematics and 10% of teachers in English, just 21 teachers (3.6%) reported doing so for visual arts.

VISUAL ARTS: SUCCESSES

Teacher Template, visual arts: Q20
The greatest success which I have experienced in implementing the Visual Arts Curriculum is:
Please list in order of importance, with the most significant impact as number one.

A total of 616 teachers (85.6%) responded to this question. A total of 12 teachers (1.9%) reported limited success or no success with the Visual Arts Curriculum. A total of five teachers reported no change in their own practice but did not indicate why. The other seven teachers attributed their lack of success to time, the demands of a multi–class setting, lack of resources and having a temporary position as a supply teacher. A total of four teachers provided the same response to questions 19 and 20. The remaining 604 teachers identified seven successes in implementing the Visual Arts Curriculum (Table 3.12). The four most frequently cited successes are discussed after Table 3.12.

Table 3.12: Teachers' successes with the Visual Arts Curriculum		
Successes	Teachers	
	n	%
Breadth of visual arts content	271	44.0
Children's enjoyment of visual arts	163	26.5
Children's self-expression	137	22.2
Children's appreciation of art	121	19.6
Children's self-confidence	101	16.4
Teacher's self-confidence	61	9.9
Integration of visual arts with other subjects	44	7.1

n=616

1. Breadth of visual arts content (44%)

Echoing findings from Q19, teachers identified the breadth of children's visual arts experience, *réimse níos leithne d'ábhar*, as their greatest success with the Visual Arts Curriculum. A total of 271 teachers noted their success with some or all of the six visual arts strands: drawing, paint and colour, print, clay, construction, fabric and fibre e.g., *Not just the drawing and painting strands.* One teacher reported, *My greatest success has been introducing all strands - especially those which were not known.* As Table 3.13 shows, significant numbers of teachers associated their Visual Arts Curriculum success with three strands in particular – clay, construction and fabric and fibre.

Table 3.13: Teachers' successes: Visual arts strands		
Visual arts strand	Teachers	
	n	%
Clay	89	14.4
Construction	63	10.2
Fabric and fibre	56	9.0
Paint and colour	25	4.0
Drawing	15	2.4

Teachers described clay, construction and fabric and fibre as wonderful media to work with. Teachers noted that, *The greater variety of media in visual arts has led to more satisfaction for teachers, parents and children.* As one teacher noted, *We're moving away from dependency on paint alone as a material with regular use of a wider variety of materials.* As a result of introducing a wider variety of media to the visual arts class, teachers explained that, *Children have more opportunity to explore different techniques.* They reported using *more varied activities with children* in the visual arts class.

2. Children's enjoyment of visual arts (26.5%)

Over half of the teachers who identified *children's enjoyment* as a success with the Visual Arts Curriculum did not explain why. Of the

remaining teachers, most attributed children's enjoyment in visual arts to the breadth of their experience with a variety of strands, media and activities, as described above. As one teacher noted, *Tá na páistí sona sásta rudaí difriúla a dhéanamh. Baineann siad an-sásamh as réimse níos leithne d'ábhar. (Children are very happy to make different things. They get great pleasure from the variety of media).* Children's choice of materials and techniques was also used to explain their enjoyment with visual arts. *They [children] enjoy being able to choose from a wide variety of materials and techniques.* A third reason reported by teachers for children's enjoyment focused on the inclusive nature of the visual arts e.g., *Every child loves art because nobody feels left out.* Teachers noted that the Visual Arts Curriculum offers children with learning difficulties or special needs a chance to be included.

3. Children's self-expression (22.2%)

Some 137 teachers identified self-expression by children, *Enabling children to express themselves*, as an element of their success with the Visual Arts Curriculum. Scope for children to express themselves in visual arts was attributed to the breadth of the Visual Arts Curriculum (already discussed). As one teacher explained, *Children have blossomed when it comes to using their imagination because they have a choice of media with which to express themselves.* Others added that in visual arts *children can work at their own pace.* The second element of children's self-expression reported on by teachers focused on valuing diversity of children's expression. Teachers reported, *Watching how children respond in different ways to stimuli - each child's response is different.* Teachers explained, *They are paying greater attention to detail in their art work and are trying to create pieces that are unique.* One teacher explained her success as follows: *children now make decisions about their artwork. They do not all produce carbon copies of teachers' work. They choose fabrics, tools etc,. and create their own interpretation of the chosen theme.*

4. Children's appreciation of art (19.6%)

Some 121 teachers identified children's growing appreciation of art as a success of the Visual Arts Curriculum. Teachers reported *a big improvement in children's appreciation of various art forms.* Teachers noted that, *Children are more open to artwork all around them and their appreciation of their own and other artists' work has increased.* Children's appreciation of art was associated with both *art in the environment* and the *work of artists.* Teachers reported, *Introducing children to a particular artist like Van Gogh to learn about his life and work … talk about colours used and techniques…respond to paintings … reproduce display.* Thus, teachers reported fostering an interest in well-known and famous artwork. Children were also introduced to the work of current artists – a number of teachers reported, *Inviting people to school e.g. potter, papier mache artist and creating school mural.* As well as *using the work of contemporary/modern artists as a stimulus,* teachers noted that *children respond to one another's work also.*

Echoing the second greatest success of the English curriculum reported by teachers, 16.4% of teachers identified children's increased self-confidence as a success of the Visual Arts Curriculum. A further 9.9% of teachers identified their own increased self-confidence with visual arts as a success with the Visual Arts Curriculum. Also similar to the finding for English, 7.1% of teachers reported integration of visual arts with other subjects as a key success. Findings from the focus group interviews (below) provide additional information regarding the successes that teachers experienced while implementing the English Curriculum.

Teacher and principal focus group interview, visual arts
Question: What have been your greatest successes with the Visual Arts Curriculum?

Five schools shared their successes with the Visual Arts Curriculum. The sixth school (LETNS) discussed only the challenges of implementing a new curriculum with insufficient resources. Mirroring the findings from the teacher template, teachers and principals reported the usefulness of the visual arts strands for planning, the breadth of the visual arts curriculum, and the enjoyment children experienced in visual arts.

Planning using the strands

Teachers in five schools reported that the organisation and structure of the Visual Arts Curriculum was practical and facilitated success with classroom and school planning. Teachers in Gaelscoil an Ghleanna commented, *Tá sé leagtha amach go deas (I think it's nicely laid out)*, while teachers in Scoil Naomh Muire added, *Cabhraíonn an leagadh amach atá ar churaclam na nAmharcealaíon linn an úsáid is fearr a bhaint as an am atá ar fáil chuige (The layout of the Visual arts curriculum has helped us a lot in making the best use of our time available for VA)*. Teachers in St. Bernadette's explained, *The way it is broken down is that you know exactly where you are going; you can pick an area and go for it.* Teachers referred to the ease with which they could map the six visual arts strands across their monthly plans.

> *We have a template that you look at each year. It is laid out for the month to make sure you have covered everything. So it is great, you can look back and think, I haven't done fabric and fibre in a while, so it's time to touch on it again!* (St. Helen's)

Teachers reported that the structure and layout of the Visual Arts Curriculum also facilitated school planning e.g., *One success is the whole school planning of Art. Second are not only doing construction, fabric and fibre, but like the other classes, they touch on everything… because we're planning at school level.* The principal of Gaelscoil an Ghleanna

reported that at school level, *Ba thríd an bpleanáil scoile a roghnaíomar na snáitheanna a bhí le tabhairt fúthu gach bliain tríd an scoil (The whole school planning allowed us to specify which strands would be engaged in each year throughout the school).* Teachers in St. Helen's school explained that they had *progressed to planning for June a visual arts week… all the strands will be covered that week.*

Breadth of visual arts curriculum and status of visual arts

Teachers in five schools also spoke of their success implementing *all of the six strands in the Visual Arts Curriculum.* In addition to drawing and painting, teachers reported also using the *new media* in visual arts, thus engaging children in a *variety of 2D and 3D work.* Teachers in St. Helen's reported their enthusiasm for the Visual Arts Curriculum, given their success with it to date.

> *Because of the different strands, the variety of work that is being done is great. There is always room for improvement but we are only getting into it really. The children are getting a great flavour for all these different Strands.* (St. Helen's)

Echoing findings regarding the usefulness of the Visual Arts Curriculum for planning, teachers reported that the layout and structure of the curriculum has resulted in a more structured approach to the visual arts, which ensures that children engage in all six strands.

> *I think the new curriculum being laid out in strands is putting more emphasis on fabric, fibre, construction, clay and they may have been missed in the past. They're being done now and we're being more creative now with they way they are done.* (St. Bernadette's)

Given the *increase in awareness and involvement in art* as a result of the Visual Arts Curriculum, teachers reported an increased status of

visual arts in their schools. Teachers in St. Helen's explained that visual arts had moved up the ladder e.g., *It's not a Friday afternoon activity any more.* A teacher in St. Bernadette's concurred, *It has now gone up in everybody's estimation, it is more valued. It is something we feel good about too.*

Enjoyment of visual arts

Teachers in four schools identified enjoyment of visual arts for children and teachers, as one of their successes. In Gaelscoil an Ghleanna *Forbraíonn na páistí an chruthaitheacht agus an samhlaíocht agus baineann siad taitneamh as a bheith ag triail agus ag obair le hábhair (Children develop their creativity and imagination and they enjoy exploring and working with materials).* Teachers also reported their excitement and enthusiasm for *a part of the curriculum I wasn't very interested in before.* As one teacher explained, *It is enjoyable compared to what it used to be.* Teachers cited the emphasis on process in the Visual Arts Curriculum, as an important element of children's enjoyment.

> *One of the successes is that children engage in the process of making art. They really thrive in the construction and are really proud of what they produce in the construction. It ties in with the recycling and the reusing across the school. They engage in the process and they are proud of their product and it gives them an opportunity of something important to discuss.* (St. Edward's)

These findings concur with the data presented from children's interviews earlier in this section, which noted that all children reported enjoying visual arts.

It is important to add that while teachers in LETNS focused on their struggle with lack of visual arts resources, teachers in three other schools also discussed the importance of having sufficient resources

for visual arts. In three schools, teachers reported the benefits of increased access to, and better organisation of visual arts resources. Teachers in St. Helen's reported that the purchase of art materials was now included in the book rental scheme, *The materials are bought centrally and we have loads of things and it's great.* Teachers in St. Bernadette's explained that children pay 35 Euro at the start of the year for *general purposes,* which ensures that they have the art resources they need throughout the year.

> **Principal Interview**
> **Question: What have been your greatest successes in your role as principal, implementing the Primary School Curriculum in your school?**

The six principals interviewed reported as a success the increased engagement with the visual arts for teachers and children in their schools. They noted that teachers and children *are experiencing a range of visual arts activities using all six strands.* Principals attributed their success with visual arts to the process-based nature of the subject, which encourages experimentation with visual arts ideas and strands.

> *The holistic focus on the whole process, instead of the product, (which) has made a big impact for children on the educational achievement on what they will have learnt in their life in school. I think it has affected teachers in that you do not have to have a beautiful project at the end; the process is really an important aspect.* (Principal LETNS)

The Primary School Curriculum encourages schools and teachers to provide a broad and balanced education for the child by integrating process-based arts education in many aspects of the child's learning. A total of three principals reported using visual arts in other subjects to provide an integrated learning experience for children in their schools.

> *Including the arts is a great way of integrating the curriculum and stimulating the children. The teachers can integrate visual arts with all other subjects, even subjects like PE and music. I think that is the one way we can ensure that children have a broad experience of the curriculum, that is, by integrating between subjects.* (St. Helen's)

Three principals described the success of projects to create integrated learning experiences for children. The principal of the Gaeltacht school explained that there is a sound rationale for engaging with project work that integrates the arts with other areas of the curriculum. The principal of Scoil Naomh Muire described her school's experiences regarding the integrated nature of arts and other subjects in the curriculum:

> *We have done a lot of projects in recent times that took in a few subjects. In the project on local history, the children learned English, Irish, geography, history, visual arts and religion, as well as a bit of science when we went to the rocks down on the beach. Projects are the best way of integrating across a few subjects. The children love it too. You don't have to depend on one textbook and that suits us here especially because a lot of the textbooks in Irish aren't great.*
> (Scoil Naomh Muire)

> *Tá a lán tionscnamh déanta le déanaí againn a thóg isteach níos mó ná ábhar amháin. Sa tionscnamh ar an stair áitiúil, d'fhoghlaim na páistí Béarla, Gaeilge, tíreolaíocht, stair, na hamhearcealaíona agus reiligiún, chomh maith le giota den eolaíocht nuair a chuamar cois tráigh. 'Siad na tionscnaimh an tslí is fearr chun ábhair a chomhtháthú. Is breá leis na páistí é. Níl tú ag brath ar aon téacsleabhar amháin agus sin mar is fearr anseo é, go mórmhór nuair nach bhfuil mórán des na leabhair thar moladh beirte.*

These findings from the principal's interviews support the findings from children and teachers concerning their success using all six visual arts strands. The next steps for schools point to a focus on integrating visual arts in other subjects, through project-based, cross-curricular learning.

Visual Arts: Challenges

Teacher Template, visual arts: Q21
The greatest challenge which I have experienced in implementing the Visual Arts Curriculum is:
Please list in order of importance, with the most significant impact as number one. (Blank text box.)

In all, 599 teachers (79.8%) responded to this question. In general, responses to this question were longer than for previous questions. A total of four teachers (0.7%) reported experiencing *no challenge* in implementing the Visual Arts Curriculum. Analysis of the remaining data identified seven key challenges teachers experienced in implementing the Visual Arts Curriculum (Table 3.14). While the data have been grouped according to these seven challenges, it's important to note that the challenges are interconnected – each is closely linked with the others. The four most frequently reported challenges are discussed after Table 3.14.

Table 3.14: Teachers' challenges with the Visual Arts Curriculum		
Challenge	Teachers	
	n	%
Class size, classroom space, classroom organisation	233	38.9
Time	188	31.4
Classroom planning	154	25.8
Lack of resources	139	23.0
Teaching methods and approaches	120	20.0
Fostering children's appreciation of art	63	10.5
Teachers' knowledge/confidence in visual arts	48	9.5

n=599

1. Class size, classroom space, classroom organisation (38.9%)

Over one-third of all teachers cited class size and classroom space as a key challenge in implementing the Visual Arts Curriculum. Teachers reported a mismatch between class size and classroom space that *Makes it difficult to attend to each child as individual during art*. Teachers also noted that the constraints of class size and classroom space resulted in *limitations and restrictions necessary for safety*. Teachers noted the absence of appropriate classroom facilities as one impediment or challenge to implementing the Visual Arts Curriculum. A total of 12.5% of teachers cited classroom organisation as a challenge to implementation. The difficulties cited included old furniture, and the absence of a sink and hot water in the classroom. A total of 9.8% of teachers referred to the lack of storage facilities in the classroom and school for visual arts resources and for students' visual arts work, particularly work in progress. This finding contrasts with the focus on process in the Visual Arts Curriculum, *In making art, the process of making is as valuable as the final product* (Teacher Guidelines, p.11).

2. Time (31.4%)

In total, 188 teachers identified lack of time as their second greatest challenge in implementing the Visual Arts Curriculum. Teachers' responses focused on the lack of *time to implement all aspects of the Visual Arts Curriculum*. In total, 22 teachers (3.7%) used the terms cover or coverage to describe this challenge e.g., *Time to give ample coverage to each strand in the curriculum*. Teachers also referred to the *difficulty of timetabling visual arts*. Teachers identified lack of time for *planning visual arts* as a challenge. Teachers explained that *It can be difficult to plan for so much in such a short time scale*. Finally, *managing time during the visual arts class* was also cited by teachers as a time issue. Teachers reported struggling to find *time for feedback on individual child's work*. Respondents noted that this was particularly challenging with junior classes, *Younger children need extra guidance, instruction and discussion in basic areas of visual*

arts. The challenge of time management was also associated with the layout and organization of the classroom itself, e.g. *Time management problems combined with no space for a separate artwork area.*

3. Classroom planning (25.8%)

Some 154 teachers identified *classroom planning* as a key challenge to implementing the Visual Arts Curriculum. Given the number of curriculum subjects competing for time (11 subjects), and the breadth of the Visual Arts Curriculum (six strands), teachers noted that *forward planning is essential to combat overload.* One challenging element of planning cited by teachers included preparing resources for the art class. Teachers noted that there was *not enough advance planning* and that *materials were not purchased early on.* Teachers also reported challenges in *trying to integrate art with other curriculum areas.* 3.1% of teachers cited the difficulties of planning for art in multi-class settings e.g., *Organising visual arts activities across junior infants to second classes in an age-/ability-appropriate way.* A number of teachers expressed a need for *new ideas that are workable* in multi-class situations. A total of 9.5% of teachers further reported the challenge of implementing the new strands. Teachers noted the challenge of *finding new ideas for fabric and fibre.* Other teachers noted the challenge in *using clay. I feel I haven't adequately dealt with this strand to date.* For some teachers planning for construction posed the greatest challenge.

4. Lack of resources (23%)

Lack of resources was identified as a challenge by almost one quarter of teachers who responded to this question. Teachers cited the difficulty of *Accessing an adequate and sufficiently varied supply of art materials to support the Visual Arts Curriculum.* Teachers noted the negative effect of insufficient resources on their ability to implement the art curriculum e.g., *Not enough resources makes it hard to give variety in [Visual arts] lessons.* Teachers claimed that there was *Not enough*

money to purchase resources needed in order for children to use their talents as creatively as possible. Teachers noted that these costs were also increasing: *The prices for all art material have greatly increased especially among retailers dealing with schools.*

In addition to these four most frequently reported challenges, Table 3.14 shows that one-fifth of teachers cited teaching methods/ approaches as a challenge to their implementation of the Visual Arts Curriculum. Teachers reported the challenge of implementing a child-centred curriculum, *trying to facilitate without influencing children towards their own way of thinking.* In particular, teachers noted the difficulty in *trying to balance creativity with the need for structure and the teaching of skills.*

> **Teacher interview, visual arts**
> **Question: What challenges have you experienced in planning for the implementation of the Visual Arts Curriculum (at different class levels)? (Blank text box).**

This question was asked of teachers and principals during a focus group interview mid-way through the school case study (i.e. in phase 2). Teachers described three challenges.

1. Teacher confidence

The teachers interviewed cited their lack of confidence in their own abilities in Visual arts as a challenge in implementing the curriculum, e.g. *We don't have the language ourselves, we look at them and think 'that's nice', but we don't know.* Teachers at LETNS explained that *art is an airy fairy subject and some teachers feel, well if you are not comfortable with drawing, it is difficult to convince a class of 30 to draw something if you haven't got the skills yourself.* In contrast, a teacher at St. Helen's explained that the developments in visual arts work within the school encouraged her own efforts in visual arts.

> *It also gives you a lift, if it is not your subject as such. I*
> *would not be an Art lover, but when everybody else around*
> *you is making a huge effort, and people are bringing in*
> *resources, you are constantly in the frame of mind, now what*
> *will I do in the visual arts? You are thinking ahead, and it*
> *does give you a wee bit of a prep, it's great.* (St. Helen's)

These findings echo findings presented in Table 3.14 for the previous question. In the teacher template study, almost 10% of teachers cited their lack of knowledge of, and confidence with, visual arts as one challenge to implementing the curriculum. As one teacher noted, *I'm not very skilled or gifted in this particular area.* Teachers' perceptions of their own competence were also explained in terms of their self-confidence, *I'm not very confident myself in teaching art, especially drawing.* A number of teachers noted their need for *further training to feel competent about some aspects of Visual arts.* Interestingly, teachers who reported not using ICT in visual arts also cited teacher confidence as a challenge earlier in this section.

2. Responding to art

Teachers in two schools identified *responding to art* as a challenge. One teacher explained.

> *I still tend to think of art as making art and the children tend*
> *to think of it as making Art and they do not think they have*
> *done Art if they are just looking at something and talking*
> *about it. So, personally I think the looking and responding is*
> *the area that tends to be neglected in my own classroom.* (St. Helen's)

Teachers in St. Bernadette's identified *time as* one impediment to a greater emphasis on looking and responding (strand unit), *I suppose it's time set aside at the end of the lesson, by the time you get cleaned up.* Additionally, teachers noted that their classrooms were *very small*, that

there was *not a lot of room,* and *no art area,* and these factors contributed to the difficulty of responding to art in the classroom. To counteract this, teachers explained that they use the library to display works of art with some key focus questions for children, and that the display is changed regularly. Again, these interview data support the findings presented in Table 3.14 in the previous question. Over one-tenth of teachers in the teacher template study noted the challenge of *encouraging children to appreciate art.* Teachers noted the challenge of *encouraging children to respond to their own works and works of their classmates.* They noted the difficulty of *balancing opportunities to make art, with opportunities to look at and make a personal response to art.*

3. Assessment

Teachers in St. Helen's expressed confusion regarding assessment in the Visual Arts Curriculum. One teacher said that she didn't even *like the term 'assessment of visual arts'.* Her colleague claimed that assessment was anathema to the philosophy of visual arts.

> I would never have thought it was something that needed to be assessed because I thought it was about letting the children express themselves, just create and be. It is very hard, it is not as if you have a yardstick

Assessment in the Visual Arts Curriculum was described as being out-of-bounds.

> When we hear 'assessment' we hear 'grades'. We just don't want to get involved in that in Art at all, they have enough of that in their lives and we have enough too, we don't need it in Art.

These interview data support the findings for Q17 earlier in this section, which showed that almost 40% of teachers questioned the value of assessment in visual arts. Teachers' belief in the mismatch

between assessment and visual arts also explains why assessment was not cited as a challenge in the previous question (Q21). Taken together, these findings highlight a range of beliefs held by teachers regarding assessment in the Visual Arts Curriculum. They point to the need to provide greater clarification and advice for teachers regarding the role of assessment in the visual arts.

VISUAL ARTS: PRIORITIES

Teacher Template, visual arts: Q22
In furthering my own implementation of the Visual Arts Curriculum, I would like to prioritise the following:
(Blank text box)

A total of 581 teachers responded to this question, representing an 80.8% response rate out of 719. Five teachers referred back to their response to a previous question, e.g. *mar 21* (as for [question] 21) and two teachers responded *none*. Analysis of the 574 remaining responses identified seven priorities for implementing the Visual Arts Curriculum (Table 3.15). The four most frequently reported priorities are discussed after Table 3.15.

Table 3.15: Teachers' priorities for the Visual Arts Curriculum		
Priorities	Teachers	
	n	%
Looking at and responding to visual arts	217	37.3
Fabric and fibre	117	20.1
Construction	110	18.9
Clay	91	15.7
Teachers' knowledge of visual arts	55	9.5
Print	54	9.2
Teaching approaches/methods	48	7.6

n=599

Taken together, table 3.15 shows that 343 teachers (59%), identified the visual arts strands (fabric, construction, clay, printing, painting, drawing) as a priority in their ongoing work. The strands that were identified by over 5% of teachers as a priority (fabric, construction, clay, print) are each represented in Table 3.15. Of the remaining two strands in visual arts, it is interesting to note that 25 teachers (4.3%) prioritised *painting* in their visual arts while 19 (3.2%) prioritised drawing in their use of the Visual Arts Curriculum with children.

1. Looking at and responding to visual arts (37.3%)

Echoing findings from the teacher interviews (just discussed), 217 teachers identified *[looking at and] responding to art* as a priority for their children. Teachers' responses focused on looking at and responding to the work of other children and also the work of artists. Language was identified as a part of this process. One teacher prioritised *looking at and responding to art, using specific language (art based) e.g. line, form, pattern, design, texture, tone, shadow, etc. by viewing artists at work in galleries, studios or in the classroom.* In total, 39 teachers who responded to Q22 (6.7%) referred to the development of children's language in visual arts. One teacher noted her priority as the *development of children's visual vocabulary and expressions,* while another prioritised *more discussion on the work of artists and of the children themselves.*

Teachers prioritised two ways of looking at and responding to the work of artists – meeting with artists and visiting museums and galleries. Some 24.6% of teachers prioritised providing *opportunities for children to engage with artists.* Teachers focused on bringing artists to the school, and visiting artists at their place of work. Outside the school, one teacher prioritised *providing opportunities for children to see artists and craftspeople at work.* A total of 8.7% of teachers reported prioritising bringing their children on visits or trips to art exhibitions, while 3.7% of teachers prioritised connecting with *local artists/designers.*

2. Fabric (20.1%)

One-fifth of teachers (117) listed *Fabric* (and fibre) as a priority. Teachers who elaborated on their response focused on *using a diversity of materials in fabric and fibre,* as well as *more use of the fabric and fibre strand*. Additionally three teachers referred to knitting and three more referred to sewing, with one teacher pleading for *keeping the knitting and sewing alive!*

3. Construction (18.9%)

A total of 110 teachers (18.9%) prioritised *construction* in their response to this question. Teachers who provided further explanation focused on greater use of construction and varied construction materials in visual arts. For example, one teacher prioritised *more opportunity to construct using everyday materials e.g. cardboard boxes etc.* while another prioritised *recycling of materials from home/school in construction projects.*

4. Clay (15.7%)

Some 91 teachers (15.7%) listed *clay* as a priority for their ongoing work in visual arts. Only six respondents elaborated on their answer.

It is worth noting that almost 10% of teachers identified professional development or access to visual arts ideas, as a priority for their work in visual arts. Additionally, 7.6% teachers prioritised improving their methods of teaching visual arts, echoing general findings regarding teachers' need for more practical advice in using the Primary School Curriculum documents. For example, these teachers also prioritised *use of group work* and ICT.

A summary of findings and recommendations from this section on the Visual Arts Curriculum is presented in the Executive Summary at the beginning of this report.

SECTION 4:

THE MATHEMATICS

CURRICULUM

MATHEMATICS CURRICULUM

This section of the report presents an analysis of findings for the Mathematics Curriculum. Like the previous sections, data for the Mathematics Curriculum have been organised according to the following headings:

- Strands and strand units

- Teaching approaches and methods

- Assessment

- Impact on children's learning

- Involvement of parents

- Curriculum successes

- Curriculum challenges

- Curriculum priorities

As in the previous two sections, findings for mathematics include teachers' responses to the teacher template, and interviews with children, teachers and principals in the case study schools. The teacher template is presented in Appendix A. Interview guides used for the case study are presented in Appendix B. Data from parents, which focuses on the Primary School Curriculum in general rather than on specific subjects, is included in Section 5.

MATHEMATICS: STRANDS AND STRAND UNITS

Teacher template, Mathematics: Q1
The extent to which I have found these strands and strand units useful in my planning for, and teaching of Mathematics is as follows: (four point rating scale: not useful–very useful).

There are five strands for each class level (combination of 2 classes) in the Mathematics Curriculum:

- Number

- Algebra

- Shape and space

- Measures

- Data.

There is also an additional strand, early mathematical activities, for junior infants. As the strand units within each strand of the Mathematics Curriculum change across the curriculum for different levels, findings from this question are presented by class level according to the classes currently taught by teachers who responded to the teacher template.

Infants (Level One)

Teacher responses to the usefulness of the strands and strand units in their planning for, and teaching of mathematics are presented in Figure 4.1. Mean scores (across all four points on the usefulness rating scale) were used to order the data in table 4.1, beginning with the strands and strand units reported most useful by teachers.

Given that the data in Figure 4.1 represent the responses of teachers who reported teaching junior and senior infant classes (level 1) during the 2003/2004 school year, the number of teachers on which the results are based is much smaller than was the case for the corresponding question in English and visual arts. For example, the highest number of teachers who responded to any element of this question in mathematics is 262 for counting (strand unit) within number (strand). Ordering (strand unit) within early mathematical activities (strand) recorded the lowest response rate.

Figure 4.1: Mathematics strands and strand units: Usefulness for teachers Junior and Senior Infants
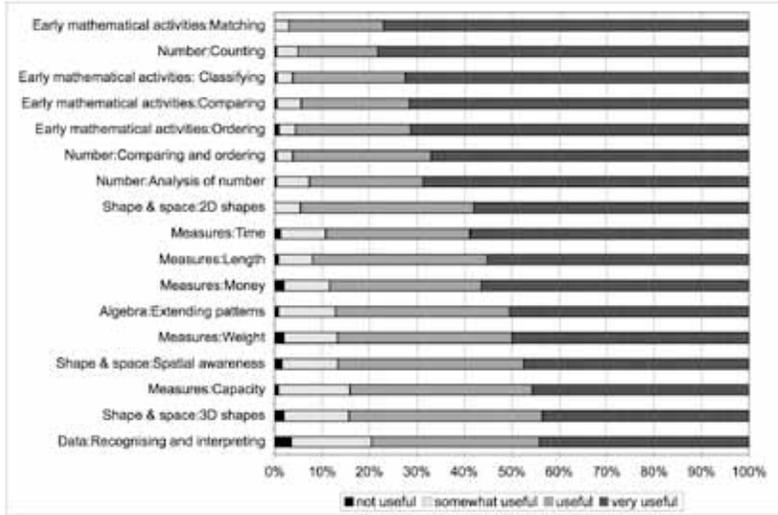
n=262

The results for junior and senior infants presented in Figure 4.1 show that teachers find early mathematical activities (strand) and number (strand) the most useful in their planning for, and teaching of mathematics. The strand, data, with its single strand unit, recognising and interpreting, shows the lowest level of usefulness for teachers, where a total of 52 teachers (20.4%) find it either *not useful or somewhat useful*. This contrasts with comparing and ordering (strand unit) within number (strand) where only ten teachers (3.8%) found it either *not useful* or *somewhat useful*. The patterns of usefulness for teachers are fairly similar in shape and space (strand), algebra (strand), and measures (strand).

First And Second Class (Level Two)

Teacher responses to the usefulness of the strands and strand units in their planning for, and teaching of mathematics to first and second classes are presented in Figure 4.2.

As with teachers of infants, the teachers of children in first and second classes also reported a high level of usefulness for number (strand), with comparing and ordering (strand unit) being the least useful within the strand. Shape and space (strand) is identified by teachers as being the least useful strand in supporting their work in mathematics. Angles (strand unit) within this strand and area (strand unit) within measures (strand) are given a comparatively low rating for usefulness.

Third And Fourth Classes (Level 3)

Figure 4.2: Mathematics strands and strand units: Usefulness for teachers of first and second classes
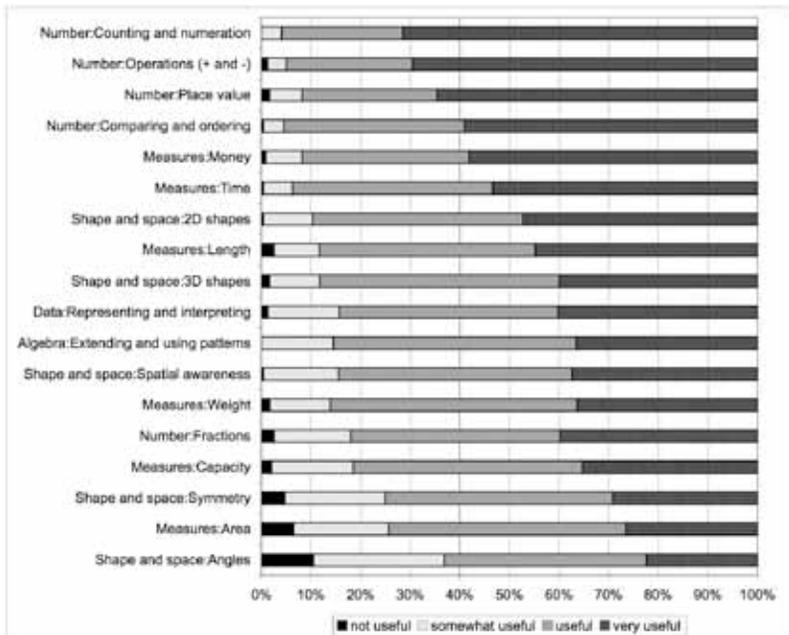
n=246

Similar to the experiences reported by teachers of infants, first and second classes, teachers of third and fourth classes reported number (strand) as being the most useful in their work. They, like the teachers of infants, identify data (strand) as being the least useful. In terms of strand units, the teachers report finding operations (strand unit) and

place value (strand unit) within number (strand) as being the most useful. For example, a total of 164 teachers (69.5%) found operations (strand unit) *very useful*, while at the other extreme, 49 teachers (22.8%) found chance (strand unit) within data (strand) *very useful*.

The results for teachers of third and fourth classes are presented in Figure 4.3.

Figure 4.3: Mathematics strands and strand units: Usefulness for teachers of third and fourth classes
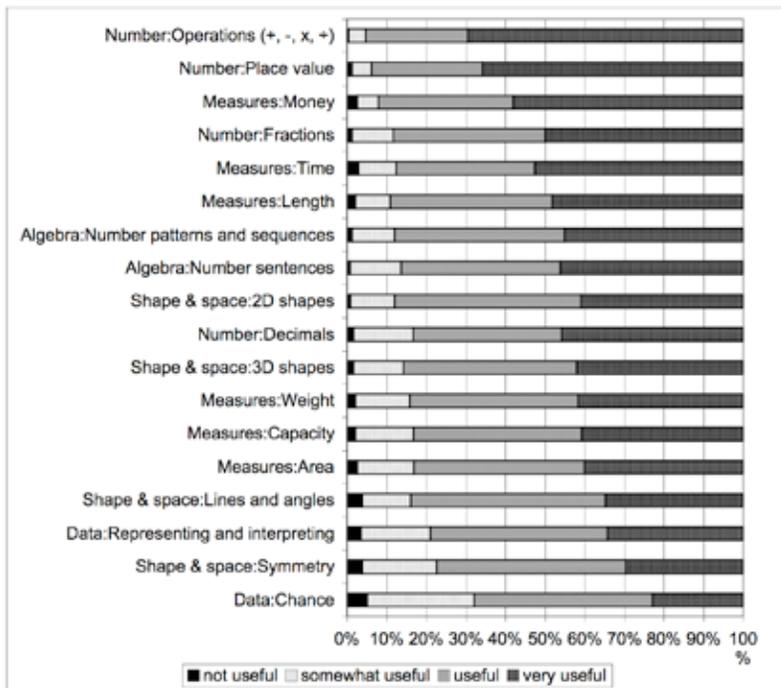
n=240

Fifth And Sixth Classes (Level 4)

Comparable to previous class levels, number (strand) is rated as being one of the most useful with measures (strand) also receiving favourable comment. Place value (strand unit) within number (strand) was reported as very useful by 65.8% of teachers. Again this compares with just 25.2% for chance (strand unit) within data (strand). A total of 19

teachers (9%) found this strand unit not useful. Teachers report a high level of usefulness for all the strand units within measures (strand).

Figure 4.4 presents maths stands and strand units, in order of usefulness as reported by teachers of fifth and sixth classes.

Figure 4.4: Mathematics strands and strand units: Usefulness for teachers fifth and sixth classes
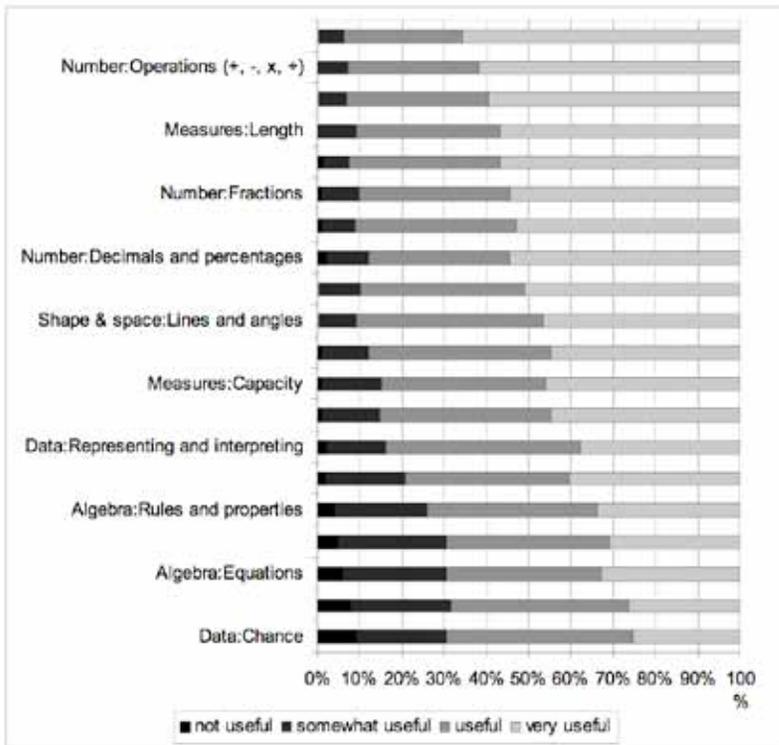
n=225

> **Teacher and principal focus group interview, Mathematics**
> **Question:** How useful have the strands and strand units been in planning for and in implementing the Mathematics Curriculum in your school?

When asked how useful they found the strands and strand units in the Mathematics Curriculum, teachers in all six schools responded positively. In Gaelscoil an Ghleanna, teachers explained that the strands and strand units were *well laid out.* Teachers in St. Helen's said that they found these *very useful for planning purposes for the same reasons as I said for visual arts in that you see what you have covered and what you need to spend more time on.* Another teacher further explained, *you look at those strands and you can plan very easily throughout the year. I think then at any stage you can take a look and say, 'Oh I haven't gone near data etc.' I do think they are very useful.*

Interestingly, while teachers and principals were very positive in their comments on the usefulness of the strands and strand units, data (strand) was reported indirectly as one which perhaps doesn't receive the attention in teacher's work as other strands do, given that it is *newer and takes some getting used to.* This would mirror the general findings across the four class levels where data (strand) was consistently identified as being the least useful strand in planning for and teaching mathematics.

In general, teachers welcomed the changes to the Mathematics Curriculum, in particular the *increased emphasis on every-day real-world maths.* One teacher explained *the really abstract concepts that really don't have any application to their modern life have been deleted and I find that is definitely a success of the new Maths Curriculum.*

The following data explores in more detail teachers' reported experiences of working with the various strands of the Mathematics Curriculum.

> **Teacher template, Mathematics: Q2**
> **The extent to which children in my class(es) have opportunities to learn to classify, match, compare and order is as follows: (four point rating scale: hardly ever/never – almost every day).**

Early mathematical activities (strand) is an additional strand in the Mathematics Curriculum for junior infants. Consisting of four strand units, classifying, matching, comparing and ordering, this strand is intended to provide children with a solid foundation for subsequent mathematical investigations. Table 4.1 presents results for the use of activities within the four strand units.

Table 4.1: Early mathematical activities								
	Activities within strand units							
	Classify		Match		Compare		Order	
	n	%	n	%	n	%	n	%
Hardly ever/ never	6	2.2	5	1.9	4	1.5	7	2.7
Once or twice a month	33	12.3	26	9.8	27	10.2	33	12.5
At least a few times a week	229	85.4	235	88.3	235	88.3	224	84.8
Total	268	100.0	266	100.0	266	100.0	264	100.0

n=719

Teachers reported using classifying, matching, comparing and ordering activities very frequently, with 84.8% of teachers reporting that children have opportunities for ordering, and 85.4% of teachers reporting that children have opportunities to classify at least a few times a week.

Number

Teacher template, Mathematics: Q3
The extent to which I have enabled children in my class(es) use estimation strategies in number is as follows:
(four point rating scale: hardly ever/never – almost every day).

Table 4.2 shows the extent to which children use different estimation strategies for number, as reported by teachers. The Mathematics Curriculum places particular emphasis on developing children's use of estimation strategies. It encourages the use of a variety of strategies and draws attention to four in particular: the front-end, clustering, rounding and special numbers strategies.

Table 4.2: Use of estimation strategies by children								
	Estimation strategy							
	Front-end		Clustering		Rounding		Special numbers	
	n	%	n	%	n	%	n	%
Hardly ever/ never	121	26.6	111	23.9	71	14.7	109	24.0
Once or twice a month	151	33.2	152	32.8	106	22.0	140	30.8
At least a few times a week	183	40.2	201	43.3	305	63.3	206	45.3
Total	455	100.0	464	100.0	482	100.0	455	100.0

n=719

Rounding is the most frequently reported estimation strategy by teachers, with 63.3% indicating they use it at least a few times a week. The other three strategies are used significantly less frequently with 26.6% of teachers reporting that they hardly ever/never use the front-end strategy. This strategy is the least used overall.

Algebra

Teacher template, English: Q4
The extent to which children in my class(es) have opportunities to develop their understanding of patterns, number patterns and sequences, and number sentences is as follows: (four point rating scale: hardly ever/never – almost every day).

Table 4.3 presents the extent to which children have opportunities to use different activities in their work in Algebra (strand) according to teacher report.

Table 4.3: Opportunities to develop understanding of Algebra								
	Algebra activity							
	Patterns		Number patterns and sequences		Number sentences		Special numbers	
	n	%	n	%	n	%	n	%
Hardly ever/ never	8	1.5	9	1.7	28	5.3	109	24.0
Once or twice a month	203	37.4	176	32.9	126	23.7	140	30.8
At least a few times a week	332	61.1	350	65.4	377	71.0	206	45.3
Total	543	100.0	535	100.0	531	100.0	455	100.0

n=719

The most frequently used algebra activity is number sentences with a total of 377 teachers (71%) reporting that children have opportunities to carry out this type of activity at least a few times a week. Teachers also report relatively frequent use of the other two activities, with 350 teachers (65.4%) and 332 teachers (61.1%) respectively, reporting using number patterns and sequences, and patterns, at least a few times a week.

Data

> **Teacher template, Mathematics: Q5**
> **The extent to which children in my class(es) have opportunities to engage in data activities is as follows: (four point rating scale: hardly ever/never – almost every day).**

Table 4.4 presents the extent to which children have opportunities to engage in data activities, as reported by teachers.

The results on the usefulness of the strand and strand units for teachers (already presented) show that data (strand) was the least useful. However, children still have opportunities to engage in data activities quite often: a total of 153 teachers (28.5%) report that children have opportunities to interpret data at least a few times a week. Nonetheless, echoing the findings about the usefulness of the strand, 77 teachers (14.4%) indicate that children hardly ever/never have opportunities to represent data, while 69 teachers (12.9%) report that children hardly ever/never collect data.

Table 4.4: Opportunities to engage in data activities						
	Data activity					
	Collect data		Represent data		Interpret data	
	n	%	n	%	n	%
Hardly ever/never	69	12.9	77	14.4	65	12.1
Once or twice a month	346	64.7	336	62.7	319	59.4
At least a few times a week	120	22.4	123	22.9	153	28.5
Total	535	100.0	536	100.0	537	100.0

n=719

Measures

Teacher template, Mathematics: Q6

The extent to which children in my class(es) have opportunities to undertake practical measuring activities is as follows: (four point rating scale: hardly ever/never – almost every day).

Figure 4.5 presents the extent to which children have opportunities to engage in practical measuring activities. Practical activity is an important component of learning in the Mathematics Curriculum.

Figure 4.5: Opportunities for undertaking practical measuring activities
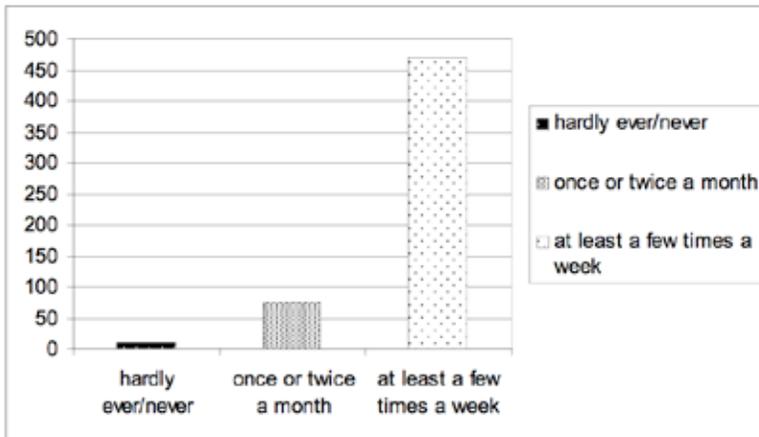
n=552

470 teachers (85%) reported that children in their classes have opportunities to undertake practical measuring activities at least a few times a week. This prevalence of practical activity is borne out in teachers' self-reported successes in implementing the Mathematics Curriculum (presented later in this section of the report). Teachers identified using practical work to support children's mathematical learning as their most significant success.

Shape and Space

> **Teacher Template, Mathematics Curriculum: Q7**
> **The following is one example of how I link work in shape and space to real-life situations: (Blank text box)**

A total of 517 teachers responded to this question, representing a 71.9% response rate out of 719. The analysis of teachers' responses to this question was challenging, as teachers frequently did not explain how they used certain activities to support children's learning in space and shape. For example, *road signs* or *buildings* were frequently offered as examples, but it was not clear what aspects of shape and space (strand) these supported. Nor was it apparent what specific activity children were involved in. On reflection, it is likely that the question itself may have lacked clarity. Analysis of responses to this question identified four types of activities used by teachers to link work in shape and space to real-life situations, presented in Table 4.5. Teachers' descriptions of how they use these four strategies are discussed in the narrative that follows.

Table 4.5: Strategies used to link work in shape and space to real-life situations		
Strategies	Teachers	
	n	%
Identifying, exploring, making shapes and angles in the environment	389	75.2
Making measurements	97	18.8
Integrating with other subjects	83	16.1
Moving to instructions	54	17.2
Linking mathematics to the child's environment	64	10.4

n=517

1. Identifying, exploring, making shapes and angles (75.2%)

Encouraging children to observe their environment for the purpose of

recognising and identifying both 2D and 3D shapes was the main type of activity recorded by teachers in their examples of linking shape and space to real–life situations. One teacher described the children *using their senses in this exploration and identification of shapes; feeling, touching and measuring shapes.* Most of the examples of activities based on the processes of identification and exploration, related to work in linking shape rather than angles, to real–life contexts. Teachers structured learning activities that encouraged children *to explore different environments for shapes in order to reinforce the children's learning about shape and space more successfully.* Teachers provided numerous examples of these activities. One teacher, in describing a classroom based activity, made reference to children identifying the shapes of *floor tiles, ceiling tiles, radiators, windows, doors, lunch-boxes.* Another teacher outlined an activity that encouraged children to explore the relationships between 2D and 3D shapes, e.g. *children find shapes in the classroom, circles-spheres, triangles-cones, squares-cubes.* Focusing on children's work with angles, one teacher explained how the *children used a right angle cut out to search out the classroom for right angles and they recorded them into their copies.*

The children's outdoor environment also featured strongly in the tasks teachers' used to create links between shape and space with real–life. Many teachers used walks or maths trails to facilitate this work. One teacher reported organising *a shape oriented walkabout in [the] school grounds [for the purpose of] observing 2D and 3D shapes in the school building, art buildings, environment, nature.* In developing this activity further, another teacher encouraged children to make links between the shapes observed in the outdoor environment and those observed in the home environment. Some teachers reported drawing children's attention to road signs, e.g. *yield sign shape, stop sign.* Children's home environment also featured strongly in teachers' examples of linking shape and space to real–life situations. These examples focused mainly on either identifying and recording 2D and

3D shapes at home, i.e. *in the kitchen, my bedroom, in the fridge* (why different shapes/packaging of food used etc.) or on the children bringing different shaped containers from home and identifying them.

2. Making measurements (18.8%)

Ag tomhas rudaí éagsúla (measuring various things) was the second main type of activity teachers reported using to link shape and space to real–life situations. This measuring work by children took place both inside and outside the classroom. In exemplifying this work, one teacher described children *measuring [the] height of [other] children in class.* Other teachers reported involving the children in *measuring items within the classroom using estimation first and in measuring angles in the classroom.* A progression or sequence of activities was evident in teachers' reported examples of 'measurement based' activities. This progression reflected an increasing level of challenge for children in their mathematical learning. An example of this was evident in a teacher's reported activity relating to storage in the classroom; *when storing classroom materials, we [teacher and children] review the spaces available in the room, estimate which space will best receive materials, then measure and store away accordingly.*

A further example included the task of finding out *how many rectangles cover the desk etc. or how many footprints from the top to the bottom of the room – estimate and measure.* The increasing level of sophistication in the measuring activities was particularly evident in teachers' focus on problem solving. Many teachers provided examples of the problems they posed for children in encouraging and facilitating children in linking their learning about space and shape to their experiences in real-life. Some examples included, *finding the cost of re-carpeting the classroom at a rate of 25 euro per sq. m (estimate and measure)* and *estimating and measuring the height of trees.* Other problem scenarios required children to consider situations outside the classroom and its surroundings. For example, children were asked to calculate the

measurements necessary *to frame a picture, to fence a field, to tile a roof, to paint a room, or to put on a skirting board.*

3. Integrating (16.1%)

Teachers identified *integrating [shape and space] with other subjects* as the third main type of activity they used to link work in shape and space to real-life situations. They provided specific examples of activities they used across a range of subjects to create this link. While these examples pertained to both shape and space, shape received greater attention than space. The most frequently cited subjects were *P.E., science, geography, history, and visual arts.* In the case of P.E., teachers linked shape and space to children's body movements, particularly in *gymnastics* and *dance.* One teacher reported making the link with geography by playing *fly-spy, mapping the school grounds and drawing a school desk (aerial picture).* Another teacher exemplified a link made with science using the *school garden* and exploring its *shapes, area*, the *perimeter of plots, paths, height of tress, [shape of] bulbs, daffodils, and drawing a habitat to scale.* Many teachers referred to children *constructing shapes* in visual arts.

4. Moving to instructions (10.4%)

Teachers identified moving to instructions as the fourth main type of activity they used to link shape and space to real-life situations. This activity was aimed primarily at supporting children's developing awareness and understanding of space rather than shape. The principal example of the activity offered by teachers related to giving *[the children] instructions using vocabulary 'to the right, left, beneath, above, below etc.'* and *getting the children to move around the classroom.* While some teachers described using this activity *both inside and outside the classroom,* most teachers reported using it indoors. Building on and developing this activity, some teachers noted their use of *route planning and map reading* with children to conceptualize work on space more

effectively. A teacher of young children provided the example of using *language games to develop spatial awareness, i.e. Hide and Seek, Where's my Teddy? I spy....* Two teachers of older children reported using *oral discussion [to describe] how to get to a certain place such as a supermarket,* and *giving the directions to a child's house.* A small number of teachers gave *maths trails* as an example of linking shape and space with real–life situations.

MATHEMATICS: TEACHING APPROACHES AND METHODS

Mathematical Skills

Teacher template, Mathematics: Q8
In my teaching of Mathematics, the extent to which I create opportunities for the children to develop the following mathematical skills is as follows: (four point rating scale: hardly ever/never – almost every day).

Figure 4.6 demonstrates the extent to which teachers reported creating opportunities for children to develop various mathematical skills for each of the six types of opportunities, using mean scores of the 4-point rating scale on the frequency scale.

Figure 4.6: Opportunities to develop mathematical skills
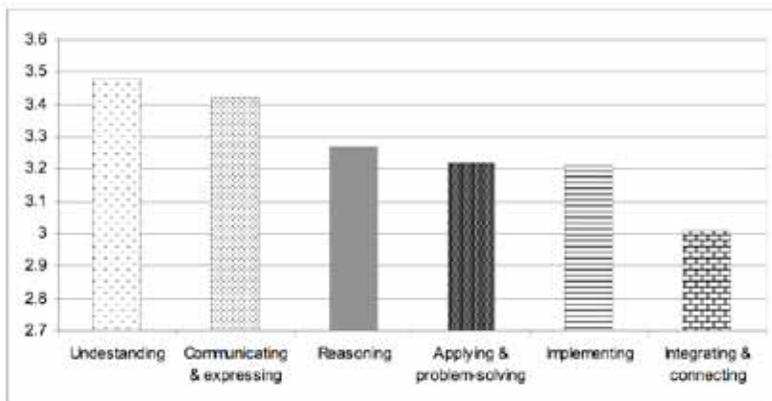
n=719

Figure 4.6 shows that understanding and recalling is reported to be the most frequently used maths activity by teachers, perhaps reflecting the importance placed on memorisation of number facts in maths. The next most frequently used maths activity by teachers, communicating and expressing, echoes the importance placed on oral language across the curriculum. Figure 4.6 shows that integrating and connecting, applying and problem solving, implementing and reasoning are among the skills that children least often have opportunities to develop. For example, a total of 419 teachers (76.3%) reported that they create opportunities for integrating and connecting *at least a few times a week,* while the figure is 505 teachers (92%) for understanding and recalling. The development of higher-order thinking and problem-solving skills is a principle of learning in the Primary School Curriculum. The skills which teachers report focusing on less frequently with children (Figure 4.6), are skills that support and contribute to the development of higher-order thinking and problem solving.

Organisational Settings

Teacher template, Mathematics: Q9
The extent to which I use different organisational settings in Mathematics learning is as follows:
(four point rating scale: hardly ever/never – almost every day).

Figure 4.7 presents the frequency of use by teachers of various organisational settings in mathematics. The four organisational settings are presented in order, beginning with whole-class teaching, which received the highest mean score across the four point rating on the frequency scale.

Figure 4.7 shows that whole-class teaching and individual work are the most frequently used organisational settings by teachers. Collaborative learning, whereby children learn with and from each other, is a principle of learning in the Primary School Curriculum. Pair work and group work offer enormous potential for collaborative learning. Yet, just over half of teachers reported using group work and pair work at least a few times a week. A total of 85 teachers (13.4%) reported that they use pair work *hardly ever/never*, while 200 (31.6%) use it *once or twice a month*. No major differences occur between the use of organisational settings in infants to second classes and in third to sixth classes.

Figure 4.7: Use of organisational settings for mathematics
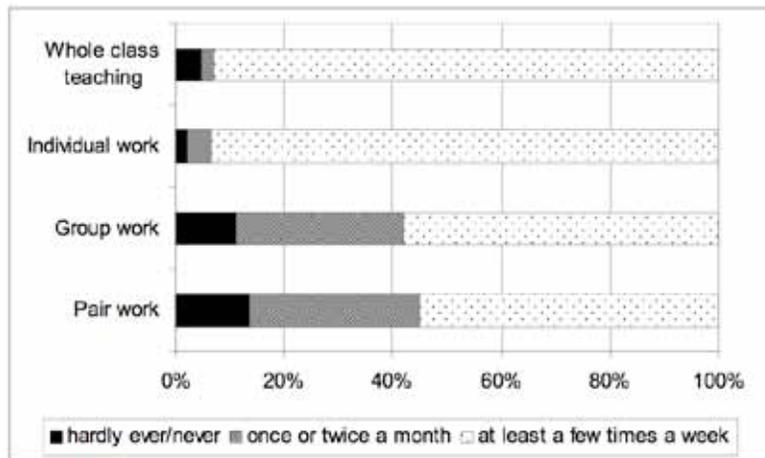
n=719

Presentation of work

Teacher template, Mathematics: Q10
The extent to which children present their work in Mathematics in different ways is as follows:
(four point rating scale: hardly ever/never – almost every day).

Table 4.6 outlines the extent to which children present their work in mathematics in different ways.

Children most frequently present their work through oral and written presentations, according to teacher reports. Frequent presentation of work using concrete materials was also reported, where 459 (69.3%) teachers reported that children use concrete materials to present their work *at least a few times a week*.

Table 4.6: Presentation of work by children in Mathematics								
Presentation format	hardly ever/ never		once or twice a month		at least a few times a week		Total	
	n	%	n	%	n	%	n	%
Oral	6	0.9	33	5.0	626	94.1	665	100.0
Pictorial	67	10.1	249	37.4	349	52.5	665	100.0
Diagrammatic	111	17.3	287	44.8	243	37.9	641	100.0
Concrete materials	45	6.8	158	23.9	459	69.3	662	100.0
Play scenarios	359	56.1	147	23.0	134	20.9	640	100.0
Written (hand or PC)	39	6.1	38	5.9	563	88.0	640	100.0

n=640–665

There are some differences between teachers of infants to second classes and those teaching third to sixth classes in how children's work is presented, particularly with regard to the use of play scenarios and concrete materials. A total of 234 teachers (88.3%) who teach children from infants to second classes, report using concrete materials *at least a few times a week*, while the figure is 151 (48.8%) for those who teach from third to sixth classes. The Mathematics Curriculum emphasises the importance of children from junior infants to sixth class having opportunities to experience a variety of materials and to choose from these when exploring a mathematical task. Teachers' self-reportage would tend to suggest that younger

children continue to have more opportunities to experience mathematics in a practical way than older children.

Maths-Rich Environment

Teacher Template Study Mathematics Curriculum: Q11

The most effective strategy I use to create a maths-rich environment in my classroom is: (Blank text box)

598 teachers responded to this question, representing an 83.2% response rate out of 719. Analysis of teachers' responses identified six strategies used by teachers to create a maths-rich environment in their classrooms. The four most frequently reported strategies by teachers are discussed after Table 4.7.

Table 4.7: Strategies used to create a maths-rich environment		
Challenge	Teachers	
	n	%
Making concrete materials available to children	393	65.7
Displaying charts/posters	141	23.6
Creating a designated maths area in the classroom	126	21.1
Promoting mathematical language	103	17.2
Linking mathematics to the child's environment	64	10.7
Linking and integrating mathematics	37	6.2

n=598

1. Concrete materials (65.7%)

Teachers identified *ag baint úsáid as ábhair chóincréiteacha (using concrete materials)* as the most effective strategy they used in creating a maths-rich environment. As noted later in this report, when asked to identify their successes in implementing mathematics, teachers reported their use of practical work with the children as their greatest success.

One teacher reported placing *plenty of concrete materials in my class at the children's disposal at all times.* Teachers described *using suitable materials for the theme being taught at the time.* They considered this important to *support [the] concept being taught and to aid [the children's] understanding.* In elaborating on the strategy of using concrete materials, teachers drew attention to the range of materials they used in the classroom. These included *tangrams, beads, cubes, links, construction straws* and *concrete materials for time, money, measuring and weighing.* One teacher reported children using specific materials for particular activities; *2D magnetic shapes for play purpose and 3D blocks for construction.* A number of teachers referred to their use of *a variety of maths-oriented games.* Some made specific reference to their use of concrete materials in creating a maths–rich environment tailored to the learning needs of young children. These teachers highlighted their use of *construction toys* and toys that would encourage imaginative play and role-play through [having] for example *a play shop – with items [for sale] and play money.* One teacher identified *the provision of a hands-on approach using concrete materials [such as] games, rhymes, songs, stories and movement.* A small number of teachers referred to their *use of ICT e.g. Number Shark,* as a particular concrete material they focused on in developing a maths-rich classroom environment.

2. Charts/posters (23.6%)

Postaeirí a chrochadh ar an mballa (to hang posters on the wall) was identified by teachers as the second most effective strategy in creating a maths-rich environment in their classrooms. Teachers noted the importance of these *for discussion and practice,* and described using them to *illustrate maths concepts.* In this way, teachers reported using *posters based on [the] strand unit being taught.* Some teachers gave specific examples of the focus of posters/charts they used; *poster displays – numbers/numerals/seasons/days/months/tallest boy/tallest girl/ pictures/graphs* and *numbers.*

3. Designated maths area (21.1%)

Creating and using a *maths area in the classroom* was the third most effective strategy identified by teachers in their creation of a maths-rich classroom environment. Some teachers described this designated maths area as an *interactive maths area* with *interactive displays, allowing children time to explore and [to] discover properties and uses of maths equipment.* Many teachers reported using the maths area to support children's learning in a particular topic or strand unit in the Mathematics Curriculum; having a *maths bay where children can access materials and display resources associated with the strand unit being covered.* Some teachers commented on the children's role in resourcing the maths area, enabling them to link the content of the Mathematics Curriculum to everyday life; *children fill [the] maths corner with everyday objects representing the week's topic.* Some teachers noted an additional activity in supporting children's ownership of the maths area; *displaying children's work* (in maths area).

4. Language (17.2%)

Teachers identified the use of maths language as the fourth most effective strategy in creating a maths-rich classroom environment. Many teachers referred to their *use of oral work in promoting and reinforcing mathematical learning.* One teacher commented on *using maths stories based on everyday events.* Other teachers reported their use of *quizzes and brainteasers,* and *discussion of puzzles based on work covered. Displaying vocabulary… related to the topic or strand unit being taught* on charts was a further frequently mentioned activity by teachers. In elaborating on the use of mathematical vocabulary, one teacher described *integrating maths vocabulary with as many subjects as possible.* Expanding on the use of integration, another teacher reported the *incidental use of maths and mathematical language in the everyday running of my classroom.* The use of *discussion* or *labhairt ar an ábhair* was also noted by some teachers; *open discussion on whatever topic*

we are attempting to cover and helping the pupils to understand and reason, rather than just getting correct answers – by continually asking the questions, Who? How do we know? Many teachers described how mental maths were used *to reason out the problem and how to solve it and to discuss after solving the problem – how did I do it?*

Some 64 teachers (10.7%) reported linking mathematics to real–life situations as a strategy in creating a maths–rich environment. Teachers reported that this contextualisation of mathematics aided the successful implementation of the mathematics curriculum, and was a priority in furthering their implementation of the subject. The successes and priorities are discussed in detail later in the section.

Problem Solving

> **Teacher template, Mathematics: Q12**
> **The extent to which I use different types of mathematical problem-solving activities with children in my classroom is as follows: (four point rating scale: hardly ever/never – almost every day).**

Table 4.8 presents the extent to which teachers reported using different types of mathematical problem-solving activities with children.

Table 4.8: Use of problem-solving activities in mathematics								
Class teacher	hardly ever/ never		once or twice a month		at least a few times a week		Total	
	n	%	n	%	n	%	n	%
Word problems	36	5.6	106	16.5	499	77.8	641	100.0
Practical tasks	19	2.9	156	23.9	479	73.2	654	100.0
Open-ended investigation	166	27.1	266	43.5	180	29.4	612	100.0
Puzzles	78	12.2	308	48.3	252	39.5	638	100.0
Games	69	10.6	282	43.3	300	46.1	651	100.0

Table 4.8: Use of problem-solving activities in mathematics							
Projects	396	66.4	171	28.7	29	4.9	596	100.0
Mathematical trails	391	65.4	165	27.6	42	7.0	598	100.0

n= 596-654

Word problems and practical tasks are among the most frequently used problem-solving activities reported by teachers. For example, a total of 499 teachers (77.8%) reported using word problems at least a few times a week. Echoing findings presented earlier in this section, (Figure 4.6 Opportunities to develop mathematical skills) low levels of use are reported for projects and mathematical trails.

There are some differences in the use of problem-solving activities between teachers of infants to second classes and those teaching third to sixth classes. The analysis shows differences in particular for the use of puzzles and games. For example, a total of 110 teachers (43.8%) who teach children from infants to second classes report using puzzles at least a few times a week, while the figure is 103 teachers (33.4%) for those who teach from third to sixth classes. As outlined earlier, the Mathematics Curriculum is intended to be a hands-on curriculum for children from infants to sixth class.

Calculators

Teacher template, Mathematics: Q13
The types of activities for which children in my class(es) (fourth to 6th) use calculators are: (Tick boxes).

Table 4.9 indicates the types of activities for which children in fourth to sixth classes use calculators.

Table 4.9: Activities for which children use calculators (fourth to sixth classes)	Teachers	
Activities	n	%
To understand the four rules of number and their relationships	176	65.4
To engage in more complex problem-solving tasks	163	60.6
To remove computational barriers	170	63.2
To explore the number system and discover facts and relationships	130	48.3
To create and explore number patterns	145	53.9
To predict and check results	215	79.9

n=269

Analysis of results is confined to the 269 teachers who were teaching children from fourth to sixth classes only. The most commonly used calculator activity is predicting and checking results and the least used is exploring the number system and discovering facts and relationships. This latter activity is linked to the development of higher-order thinking and problem solving, a principle of learning in the Primary School Curriculum. Like the findings for the extent to which children have opportunities to develop different mathematical skills (reported earlier in the section), these higher-order skills appear to receive less attention than lower-order skills.

Integration

Teacher template, Mathematics: Q15
Children in my class have opportunities to integrate their learning in mathematics with other subjects (Tick box).

A total of 620 teachers (99.8%) reported that children have opportunities to integrate their learning in mathematics. Just one teacher responded that children in his/her class did not.

Children's interview, Mathematics

Questions: What was your (least/) favourite part of Mathematics?

What did you like most/least about what you did in Mathematics?

What was the most exciting part of Mathematics for you? Why?

Findings from Q15 above were borne out in children's interviews. When asked what maths learning they most enjoyed children focused on using authentic (practical) materials, doing games and puzzles and using maths in other subjects.

Using (authentic) practical materials

When asked what they liked most about maths, children enthusiastically described using everyday, real-world materials in maths, including money. Children in second class explained, we have a shop in our classroom – *and we have 12 things to sell and they are 1 cent, 2 cent, 3 cent, 4 cent, 5 cent…. sometimes, we use real money, some 2 cents, 50s and 20s.* Fourth class children explained that *sales and discount* was their favourite part of maths – *I like figuring out the money – what you have and what's left afterwards.* Third class children described making an abacus from everyday materials *to keep track of what's being added and what's being taken away:*

> We made an abacus in second class. We had to bring in
> material like wool, a box of materials, materials from home if
> we had any. When we built the model we used twigs and rope
> and beads and things. It was gas… but it worked! (third
> class, St. Bernadette's)

A fourth class child explained that her favourite part of maths was *weighing different things*. Second class children talked about their use of everyday materials, *teddies, books, pencils and rubbers and scissors,* and weighing scales to understand measurement.

Interviewer: *What types of things were you weighing?*

Respondent: *Pencils, crayons, pencil cases, scissors, pens.*

Interviewer: *What do you use to weigh them?*

Respondent: *Weighing Scales. We weigh two things and we learn how much it is in cubes. We have to put them on to things that go across.*

Interviewer: *Oh you have a balance is it?*

Respondent: *Yes, say if there was a crayon, but there was a pencil case in, then one goes up and the other goes down. The one that goes down is the heaviest.*

Interviewer: *How do you know, if you are measuring with cubes, how do you know if you have enough cubes?*

Respondent: *It would be equal. (second class, St. Helen's)*

Maths games, puzzles and problems

Children spoke with great excitement about their use of games and puzzles and interesting problems in mathematics. When asked what she most liked about maths, a fourth class child explained, *The puzzle chapter I like. There should be more of the puzzles, at least twice a year. But there is only one chapter on it in the book*. Children explained that maths games and puzzles are motivational. One fifth class child described with excitement the maths quiz she did with a substitute teacher:

> *You didn't have to do it by yourself. There was sums on a page and each sum has a letter and you have to work out the sum and underneath it has a story. You worked out the sum and then got the answer and underneath there were boxes and answers in them and after you'd done all the sums you got a few words, kind of like a puzzle. It was cool.*
> (St. Bernadette's)

Children said that games could also be used to make learning mental maths or tables more exciting:

> *The table domino is good. To start off, you put one [card] down on the table, say three sixes, and you have to try and look for a question which says that answer. And it's easy to get caught out matching up the cards, so you better keep your mind on it!* (St. Edward's)

The competitive element of games, made learning tables more exciting for second class in St. Helen's:

> *There's this gun shooting game. Teacher will tell you something to add and you have to do say the answer and then you can do it again, and then if you keep winning in every shoot, you could even be the new person that takes over!* (St. Helen's).

Children described how maths games could also make learning complex concepts more interesting, I like doing the puzzles and I like the problems. *I like the bars where you work out what's going on, like the bar charts. Children reported that they enjoyed the interesting maths problems, not like the ones where he goes off to the shop and you have to read it out of the book and do it by yourself.*

Interviewer: *Did you do any problems that were really interesting, where you had to figure out what was going on?*

Respondent: *One day our teacher brought over this game and you had to*

190

> *go see how many times you'd roll the dice and how many*
> *times the number shows up again. We were going to look at*
> *the number six to see how many times it would roll again.*

Respondent: *But we kept getting number 5! It's all about chance to see if*
you have 1 out of six chances, how many times would it
happen. The name of the chapter was called chance. It was
prob, probably…

Respondent: *Prob-a-bil-it-y! Like the probability you'd win the lotto!*

Respondent: *As if! We couldn't even get a 6, and we had six numbers and*
loadsa chances… (fifth class, St. Bernadette's)

Children's enthusiasm for maths games and puzzles echoed their interest in using authentic scenarios, which help them to see the relevance of maths concepts to their daily lives.

Using maths in other subjects

Children identified the integration of mathematics with other subjects as being one of the most enjoyable/exciting parts of their maths experience. When asked to describe what they did in maths during the year, many children gave examples of maths activities that were connected with work in another subject, such as visual arts.

Interviewer: *What sort of things have you done in maths this year?*

Respondent: *We did …3D shapes, pyramids, making things and*
understanding how many corners they have. We made them
with small matchsticks. When we were making the matchsticks
into shapes it was kind of art as well. You can do it in games
like you can do it in puzzles. Another maths thing was one
where we had to use blobs of paint on the models and that
was symmetrical. (Fourth class, LETNS)

Children also reported using maths to support their learning in history, geography, science and English. A third class child in St. Edward's explained, *We have this notebook, and every time we finish a subject in Maths, like weight, we write it down, like say 1000 grammes is one kilo and it's in our dictionary in Maths cause we use it for definitions and for explaining things.*

ICT

> **Teacher Template Study, Mathematics Curriculum: Q14a**
> I have used ICT to support the Mathematics Curriculum in the following ways:
> i) List the ways you have used ICT (Blank text box)
> ii) Specify the type of ICT used (software, Internet, peripheral devices, etc.) (Blank text box)

420 teachers responded to Q14a representing a 58.4% response out of 719. Analysis of teachers' responses to part i) of this question identified six *ways* teachers use ICT in the Mathematics Curriculum. These six ways teachers reported using ICT are presented in Table 4.10.

Table 4.10: Ways teachers use ICT in mathematics		
Challenge	Teachers	
	n	%
Number	93	22.1
Software	72	17.1
Reinforcement	64	15.2
Games	52	12.3
Shape and space	46	10.9
Problem solving	27	6.4

n=269

Table 4.9 shows that in their responses, some teachers cited strands of the curriculum where ICT was used, e.g. *number, shape and space*, while others focused on describing the purpose of their use of ICT e.g., *for reinforcement*. This variation in response from a curriculum focus to an ICT focus may indicate that teachers were unclear on how the term *ways* was to be interpreted in the question. The four most frequently reported *ways* teachers reported using ICT in mathematics are described in the discussion which follows.

1. Number (20%)

Some 93 teachers (20%) reported using ICT to support number in the Mathematics Curriculum. Most teachers responded with the single word answer, *number,* while other teachers reported using ICT for number operations, e.g. *recalling addition and subtraction facts*. Teachers reported using ICT for *pre-number work* and *early mathematical activities*. Other teachers noted *recognition of number* as their main use of ICT. Teachers also reported using ICT for *number operations with weaker children*.

2. Software (17%)

The majority of teachers who stated that they used *software, maths programmes,* or *CDs* in mathematics did not elaborate further on this response. Some teachers named specific software programmes in their response. These titles in general presented activities in game-like scenarios.

3. Reinforcement (15%)

Teachers identified reinforcement as the third most frequent use of ICT in the Mathematics Curriculum. A total of 26 teachers (6.2%) reported using ICT to reinforce children's learning of *tables*. Teachers also noted that they used ICT *to consolidate concepts being taught,* to *consolidate the maths programme and to offer reinforcement of skills to*

children. Four teachers mentioned that they used ICT for *drill and practice.* One teacher noted the use of *specialised software for pupils with special needs*. In general teachers associated their use of ICT in mathematics with *supporting the strands for extension of class work,* e.g. to *reinforce matching, grading, number, shape and practising basic skills in numbers.*

4. Games (12%)

Teachers' identified *games* as the fourth most frequent way they use ICT in the Mathematics Curriculum. The majority of teachers did not elaborate on their answer. Some teachers described the kinds of games used; *mathematical games e.g. number games and puzzles, various games which improve maths skills.* One teacher noted that he/she used ICT to download extra curricular activities, such as games and puzzles, from the Internet.

The majority of teachers who responded to the first part of Question 14a reported using content-based software programmes to support the Mathematics Curriculum. No examples were provided of more creative uses of content free software, or other devices such as digital cameras, etc. There was little reported use of the Internet in maths. Though there was some use of packages that support the development of problem solving skills, in the main the responses indicate that teachers associated the use of ICT in maths with reinforcement and support software packages.

The second part of Q14a asked teachers to specify the type of ICT they employed in the Mathematics Curriculum. In general, teachers' responses focused on the types of software used and included proprietary names of particular products. Teachers did not provide additional detail other than the reported responses.

Table 4.11: Types of ICT used to support the Mathematics Curriculum		
Types of ICT	Teachers	
	n	%
Unspecified software	204	41.1
Games/adventure software	110	26.5
Number reinforcement software	100	24.1
Internet	15	3.6

n=564

Table 4.11 shows that teachers' reported use of the Internet was very low and there was no reported use of peripheral devices or digital cameras. The following narrative details the types of ICT teachers reported using.

1. Unspecified software (41.1%)

A total of 270 teachers reported that they used *software, CD ROMs*, or *programmes*, without providing further specific detail of which software was used or what it was used for.

2. Games software (27%)

Some 110 teachers' identified games software as the second type of ICT most frequently used to support the Mathematics Curriculum. These included adventure type scenarios, or games with strong visual characters, and were mainly aimed at younger children. Teachers named or listed the programme(s) used and the most frequently reported products were those that were available at the time of the IT 2000 initiative.

3. Reinforcement software (24%)

Some 100 teachers (24%) reported using reinforcement software in the Mathematics Curriculum. Teachers named the specific software

products that they used. Products supporting the learning and reinforcement of number were the most frequently reported.

4. Internet/research (3.6%)

A minority of teachers reported using the Internet in mathematics, and did not specify how it was used.

For teachers who were unable to respond to Q14a, regarding ways in which they used ICT in the Mathematics Curriculum and types of ICT used, Q14b asked teachers to explain why.

> **Teacher Template Study, Mathematics Curriculum: Q14b**
> **The main reason why I have not used ICT to support children's learning in Mathematics is as follows:**
> **(Blank text box)**

In all, 236 teachers responded to this question, representing a 32.8% response out of 719. Analysis of teachers' responses to this question identified five reasons why teachers did not use ICT, presented in order in Table 4.12. The four reasons most frequently reported by teachers are outlined in the discussion that follows.

Table 4.12: Reasons why teachers reported not using ICT in mathematics		
Reasons	Teachers	
	n	%
Time constraints	68	28.8
Unsuitable or unavailable software resource	63	26.6
Lack of classroom management strategies for ICT use	47	19.9
Insufficient number of computers	42	17.6
Lack of teacher confidence and skill	19	8.1

n=236

1. Time constraints (28.8%)

Some 68 teachers (29%) identified *lack of time* as the main reason why they did not use ICT in the Mathematics Curriculum. Teachers commented on the planning time required for ICT use, i.e. *the time it takes to set up programmes and organise time for small groups in a multi-class situation is not worth it*. The level of support required per pupil was also perceived as a time constraint as one teacher commented: *although there are great benefits to the use of ICT in classroom in this area, it is very difficult to spend time with just 1 or 2 children while they work on the computer.* Teachers noted also that ICT could interfere with other areas of the curriculum, noting, *time - children will miss out other work going on in classroom.*

2. Resources (26.6%)

Some 63 teachers (27%) reported negatively on the suitability and availability of software and ICT resources to support the Mathematics Curriculum. The majority of teachers who cited resources as an impediment to ICT use reported that they had *insufficient* software available to them in the school, or that they were *unfamiliar* with what was available. Other teachers explained that they had *no confidence in efficiency/quality of software available.* One teacher commented that *appropriate software* was *not available at present to suit children with learning difficulties.*

3. Classroom management (19.9%)

The challenge of classroom organisation and management of ICT was identified by teachers as the third reason why they did not use ICT in the Mathematics Curriculum. The *size of class and difficulty in organising it appropriately* was linked with the *need to have adult supervision for at least one session at the computer.* As a teacher explained, *setting up and implementation is very difficult.* Teachers frequently reported that they needed help in this regard. Two teachers

commented that there was a *need for [an] assistant in classroom to assist with organisation for same.* [ICT] Teachers with multiple classes also noted the challenge of classroom management, [I] *find it impossible to cope with the distraction in multi class situation with children aged four to eight.*

4. Number of computers (17.6%)

Teachers identified an insufficient number of computers, *ganntanas riomhairí,* as the fourth most significant reason why they had not used ICT to support the Mathematics Curriculum. In the main teachers had *one computer in a class of 28* or *31,* or one between four classes in a multi-class situation. While some teachers reported, *trying to give equal access to one computer among whole class* was *impossible*, others reported, *no availability of computer room* as the greatest constraint.

Although representing a relatively small number, 19 teachers (8.1%) identified their level of skill and confidence in using ICT as a significant constraint in using ICT to support the Mathematics Curriculum. The majority of these teachers mentioned *lack of confidence* or *experience*. One teacher commented, *my ability at ICT is inferior to the majority of my pupils.* Drawing on the data recorded in the case of both English and visual arts, a lack of confidence on the part of teachers appears to be an impediment to teachers' use of ICT in all three subjects under review.

MATHEMATICS: ASSESSMENT

Teacher template, Mathematics: Q16
The extent to which I assess children's progress in Mathematics in different ways is as follows: (Tick boxes).

As noted in section 2 (English curriculum), the use of the four point rating scale for this question is problematic for the least frequently

used assessment tools (diagnostic tests and standardised tests) and caution should be exercised when interpreting the results. For example, while 427 teachers report that they hardly ever/never use standardized tests, this may not be an accurate reflection of the use of this assessment tool. Table 4.13 presents the frequency with which teachers reported using six assessment tools, beginning with teacher observation.

Table 4.13 shows that 646 teachers (99.1%) reported using teacher observation *at least a few times a week*. A total of 314 teachers reported using work samples, portfolios and projects *at least a few times a week*. Diagnostic and standardised tests were reported as being the least used assessment tools. This is not surprising given their particular function in supporting the teaching and learning process.

Table 4.13: Use of assessment tools in the Mathematics Curriculum								
Class teacher	hardly ever/ never		once or twice a month		at least a few times a week		Total	
	n	%	n	%	n	%	n	%
Teacher observation	2	0.3	4	0.6	646	99.1	652	100.0
Teacher-designed tasks and tests	9	1.4	159	24.4	484	74.2	652	100.0
Work samples, portfolios and projects	112	17.8	202	32.2	314	50.0	628	100.0
Curriculum profiles	336	61.3	162	29.6	50	9.1	548	100.0
Diagnostic tests	359	66.4	145	26.8	37	6.8	541	100.0
Standardised tests	427	77.2	105	19.0	21	3.8	553	100.0

n=719

Teacher Template, Mathematics Curriculum: Q17
In my experience, the main challenge (if any) in assessing children's learning in Mathematics is:
The response was sought using an open response box with 'challenge' in one column and 'reason(s)' in the other column.

459 teachers responded to this question, representing a 63.8% response rate out of 719. A total of 21 teachers (5%) reported experiencing no challenge in assessing children's learning in mathematics. Analysis of the remaining teachers' responses identified four key challenges experienced by teachers in assessing children's learning in mathematics:

Table 4.14: Challenges in assessing children's learning in mathematics		
Challenge	Teachers	
	n	%
Time	139	30.2
The range of children's abilities in mathematics	106	23.0
Appropriateness of assessment tools	96	20.9
Language	33	7.1

n=459

The first and second most significant challenges identified by teachers and presented in Table 4.14 are very similar to findings in Table 2.13 and Table 3.9 for the same question in English and visual arts respectively.

1. Time (30.2%)

Teachers identified [not] *having the time* as the most significant challenge they experience in assessing children's learning in mathematics. They attributed this to two factors: class size and breadth of curriculum. Teachers outlined how the sheer breadth of the Mathematics Curriculum creates barriers for them in assessing each child's learning, *Monitoring their progress in the curriculum in all*

areas as it is so broad and so many concepts/strands to evaluate with *each strand being individual and quite different.* Two teachers identified some of the new emphases in the Mathematics Curriculum as posing a challenge to assessing children's learning from a time perspective e.g., *Difficulty finding uninterrupted time to fully assess children on practical tasks/problem-solving tasks …* and *to provide adequate time to allow each child talk about tasks.* Some teachers cited the numbers of children in their classes as contributing to the difficulty they experienced finding time to assess children's learning, *The time factor with a class of 29 kids. The weak can only suffer.* Large class sizes were clearly associated with the difficulties experienced by teachers in ring-fencing sufficient time to assess each child effectively; *Am a fháil gach dalta a mheasúnú go rialta (to find time to assess each child properly).* In describing the negative impact of class size on assessment, many teachers noted the challenge they faced in assessing children according to their individual needs. Children with special educational needs received particular mention e.g., *Time constraints for [assessing] children with learning difficulties.*

2. Range of children's abilities in mathematics (23%)

Teachers identified the range of children's abilities in mathematics as presenting the second most significant challenge in assessing children's learning. They identified two issues: the diversity of children's individual strengths and needs, and multi-class settings with at least two different class programmes. Teachers commented how this ability range, *Makes it harder to assess how precisely each child coped with a new concept* and [to ensure] *individual testing of children's mathematical knowledge.* Some teachers noted how this creates difficulties in *pinpointing their [the children's] specific mathematical difficulty.* A number of teachers noted the challenge of creating and using differentiated assessment to cater for the range of ability in their classrooms, *Tailoring test to individuals to pinpoint areas of weakness.*

Respondents associated the challenge in assessing children's learning in mathematics with the children's ability in specific areas of the subject. In particular, they noted *children's lack of ability and motivation to memorise maths facts and basic tables unknown therefore problems with solving.*

3. Appropriateness of assessment tools (20.9%)

Teachers identified the appropriateness of assessment tools as the third most significant challenge in assessing children's learning in mathematics. This compares with the 25% of teachers who also cited this as a challenge in English. Many teachers commented on the *mismatch* between the Mathematics Curriculum and standardised tests which they considered to be problematic e.g., *No standardised test available to test revised curriculum*. Some teachers identified additional challenges posed by standardised tests including [their inability] *to display an accurate reflection of children's work* and their unsuitability *to assess specific learning disability child in comparison to mainstream*. The child's age was also identified as being problematic when assessing mathematical learning. In particular, respondents highlighted the challenge in making accurate assessments of young children's learning, *Ag leibhéal na naíonán deacair a mheas an fíor thuiscint nó 'rote' reproduction atá i gceist (hard to get a true result with infants, given the emphasis on rote learning)* and, *Very little diagnostic testing for young children, mostly teacher observation and checklists.* The range of assessment tools used with children was noted by a number of teachers. They considered the range too narrow and saw an over-reliance on written assessment as being inconsistent with the new Mathematics Curriculum. Two teachers noted [the challenge of] *obtaining a variety of different ways to assess the given concept – using different language for same problem* and [difficulty in] *sticking to wrong/right answer [when] procedure also counts.*

4. Language (7%)

Teachers' identified language as the fourth greatest challenge in assessing children's learning in mathematics. Many of them saw children's own language ability in terms of their range and understanding of vocabulary as presenting a challenge in making accurate assessments of the children's mathematical learning. One teacher commented on how children were *unable to express knowledge because of [their] lack of oral language.* Teachers also noted children's *lack of expressive language for maths and poor comprehension – inability to read.* One teacher, in expanding on the impact of children's own literacy levels on the assessment process, explained that, *When doing written problems it is difficult to assess if difficulty in doing the problem is caused by lack of understanding in mathematics or an inability to comprehend the written problem.* As well as children's own language ability posing challenges, some teachers considered *mathematical language* itself to be problematic for certain children. Respondents saw this as being at odds with the language used by children in their home. Some teachers noted that an oral assessment of children's learning in mathematics was challenging. Two teachers referred to the difficulty they experienced in using oral assessment given the number of children in their classrooms and the range of those children's abilities; *only getting [time] to ask a certain number in oral work* and *oral testing [problematic] in individual testing of children's mathematical knowledge.*

MATHEMATICS: IMPACT ON CHILDREN'S LEARNING

Teacher Template, Mathematics Curriculum: Q19
In my experience, I think the Primary School Curriculum: Mathematics (1999) is impacting on children's learning in the following ways:
Please list in order of importance, with the most significant impact as number one. (Open response box)

593 teachers responded to this question representing an 82.5% response rate out of 719. Six teachers (1%) responded that they did not consider the Mathematics Curriculum (1999) to have had any great impact on children's learning. As one teacher commented, *No improvement in maths despite the revised maths curriculum being introduced*. Analysis of the remaining 99% of responses identified five key impacts of the Mathematics Curriculum on children's learning. The four most frequently reported challenges are discussed following Table 4.15.

Table 4.15: Impact of the Mathematics Curriculum on children's learning		
Impacts	Teachers	
	n	%
Self-confidence/success	298	50.3
Improved skills development	137	23.1
Increased awareness of the relevance of maths in everyday life	136	22.9
Enjoyment	119	20.1
Greater achievement for less able children	47	7.9

n=593

1. Self–confidence/success (50.3%)

Teachers identified success and increased self-confidence in learning due to the increased child-centredness of the Mathematics Curriculum, as having the greatest impact on children's learning. Many teachers commented on how the curriculum being *níos praticiúla (more practical)* had made learning more meaningful for children. *Involving the children in using concrete materials to physically solve mathematical problems [helps in the development] of higher order thinking skills, [and] changes maths from being a skill and drill exercise to one of deeper understanding and reasoning.* Not only did teachers consider children to understand concepts more clearly, but they also *grasped them [the concepts] more easily*. Teachers noted that as work is *more*

practical, [and] therefore less abstract, concepts are clearer for pupils and the programme is less difficult. Teachers noted that this experience results in, *Níos lú brú orthu [ar na páistí] (less pressure on them [the children]).*

Teachers noted that this new emphasis on practical work in the Mathematics Curriculum made it, *More child friendly and more likely that the child will achieve success.* Some teachers identified the greater match between the content of the curriculum and the range of children's abilities in mathematics, *Content is now more age appropriate and caters for a wider range of ability.* Teachers commented that the curriculum has *a great leaning towards the weaker child* enabling each child to experience success and a sense of achievement in their learning. Another feature of the Mathematics Curriculum, which teachers identified as enabling each child to experience success in learning, concerned *a greater tolerance of mistakes/wrong answers.* As one teacher reported, *less emphasis on getting the right answer and more on strategy [results] in less pressure on the children.*

2. Skills development (23.1%)

Teachers identified improved skills development as the second most significant impact of the Mathematics Curriculum on children's learning. Teachers reported that the curriculum has contributed to the development of a range of skills. One teacher noted how *they [children] learn and apply skills that will help them to live a full life as a child.* The skills mentioned most frequently included *problem-solving* and *estimating skills;* [Children have become] *more adept at problem-solving and investigation.* In expanding on how this improved skills development is influencing children's learning, one teacher reported how *estimating skills are improving mental maths.* In elaborating further on how the skills development has impacted on children's learning, a number of teachers noted how *more self-discovery and investigation skills are being used* by children in their day-to-day learning in mathematics.

Another teacher reported improved development of *analytical skills.* One teacher, in noting three impacts of the Mathematics Curriculum on children's learning, referred to three different types of skills; *Communicating and expressing – other children discuss mathematical processes and often at a level that other class children can understand, Reasoning – the children can search and investigate which is very important and Applying and problem-solving – applying concepts and looking at problems.*

The development of higher-order thinking skills, which include many of those cited by teachers in reporting their findings regarding the impact of the Mathematics Curriculum on children's learning, is a key principle of the Primary School Curriculum. This 'wider' importance of developing the mathematical skills was noted by a number of teachers, *Giving [children] life skills for everyday situations* and *developing transferable skills*. It is interesting to note that while teachers identified the development of these higher-order skills as being the second most significant impact of the Mathematics Curriculum on children's learning, some of these skills appeared to receive less attention and focus in teachers' responses to the section concerning the development of children's mathematical skills.

3. Relevance of maths in everyday life (22.9%)

Teachers identified children's increased awareness of the relevance of mathematics to their daily lives as being the third most significant impact: *bringing maths into the real world for the child*. With the curriculum's focus on mathematics in real-life situations and activities, many teachers noted how *children see maths as a 'live' subject!* and as a subject which is *more meaningful* to them [the children]. They reported this greater relevance of the subject to children resulting in children seeing *that maths is beneficial and useful in their everyday world.* One teacher noted how this greater relevance *makes maths more real*

and interesting for children. In expanding on this point, another teacher reported how the increased relevance has led to *improved learning and understanding* for children. Some teachers attributed greater achievement in the subject to this improved learning.

4. Enjoyment (20.1%)

Teachers identified children's enjoyment of the subject as the fourth greatest impact of the Mathematics Curriculum on children's learning: *Maths is now a hands-on, participatory, fun subject.* They reported children's enjoyment being related to increased confidence in the subject and in turn to the development of a more positive attitude towards mathematics in general; *children now love maths [which] improves their overall attitude towards it.* Many teachers attributed children's increased enjoyment in the subject to specific areas of mathematical learning. One teacher noted how *maths is now more enjoyable for the children, especially with the introduction of calculators and chance.* Other teachers commented on *the enjoyment that they [the children] get from exploring numbers* and noted how *mental maths is [now] enjoyable.* Teachers credited children's enjoyment of mathematics with the teaching and learning strategies underpinning the Mathematics Curriculum – the constructivist curriculum as referred to earlier. The use of concrete materials received particular attention in teachers' responses: *More use of concrete materials [leading to] increased enjoyment – sometimes they [the children] are having so much fun, they don't realize they are learning.* Games, visual aids and CD-ROMs were also noted by teachers as playing a role in making mathematical learning more enjoyable for children. One teacher commented, *children's concept of maths is being seen as fun and interactive. Use of visual aids and CD ROMs also helps to gain their interest and sustain their interaction and interest.* Another teacher reported that children *enjoy maths more with games.* Teachers refer to practical activity as being a source of children's enjoyment of the subject and this is echoed in their

strategies to create a maths–rich environment. Making concrete materials available for children was the most frequently used strategy by teachers.

A number of teachers noted children's increased confidence in mathematics. In particular, they commented on children being *more confident about working independently.* One teacher reported this confidence manifesting itself in *confidence in tackling problems and discovering for themselves.* Some teachers linked this increased confidence with an *enhancement of self-esteem.*

Overall, teachers reported that children's new enjoyment of the subject, together with their increased confidence, had resulted in mathematics becoming *a very popular subject generally,* rather than *dull and interesting.*

MATHEMATICS: INVOLVEMENT OF PARENTS

Teacher Template, Mathematics Curriculum: Q18
I involve parents/guardians in supporting their children's progress in Mathematics by:
Please list activities in order of importance, with the most significant as number one. (Blank text box)

In all, 618 teachers responded to this question representing an 86.0% response rate out of 719. As noted in the previous section, teachers' responses focused less on the ways they involve parents e.g., *organizing teacher/parent communications,* and more on the ways they hoped parents/guardians would support their children's learning e.g., *encouraging help with mathematical tables.* Findings presented in Table 4.16 identify the five ways teachers reported involving parents in their children's learning in mathematics.

Table 4.16: Involving parents/guardians in children's learning with the Mathematics Curriculum		
Activities	Teachers	
	n	%
Giving homework	497	80.4
Organising teacher/parent communications	179	28.9
Encouraging help with mathematical tables	177	28.6
Encouraging help with contextualising maths (helping children see the relevance of maths in everyday life)	81	13.1
Sharing assessment information	70	11.3

n=618

Other activities reported by teachers included creating opportunities for parents/guardians to see the mathematical work completed by children in school in copy books and workbooks, and, similar to the visual arts findings, involving parents/guardians in gathering resources for use in mathematics in school. Fewer than 25 teachers reported each of these activities (4.0%). The four most frequently reported ways teachers involve parents in their children's maths learning are discussed below.

1. Giving homework (80.4%)

Teachers identified *obair bhaile bunaithe ar Mhatamaitic* ([being involved in] *homework based on mathematics*) as the most significant way in which parents/guardians could support their children's progress in mathematics. Many teachers reported a very active role for parents/guardians in their children's homework, *working together on homework tasks*. A number of teachers cited parental involvement in *mathematical games* as a particular strategy they encouraged to enable parents/guardians to reinforce mathematical learning, [Encouraging] *homework activities such as games, counting games/estimating games.* Other teachers reported using *practical homework* as a strategy for involving parents/guardians. They provided examples of these practical activities which

reflected different stages in children's mathematical learning; *Counting with them [children], saying number rhymes with them, telling number stories – Three Little Pigs, naming colours, and giving practical assignments involving weighing, measuring etc.* Side by side with this active involvement of parents/guardians in supporting children's progress in mathematics, many teachers reported a more passive role for parents/guardians in their children's homework. This role was illustrated through the use of phrases such as *supervision of homework, seiceáil obair bhaile, signing of homework, ensure homework is completed.* Some teachers noted that they encouraged parents/guardians to bring any difficulties the children experienced in completing the homework to their attention; *cinntiú go bhfuil obair bhaile déanta – deacrachtaí a chur in iúl don mhúinteoir.*

2. Organising parent/teacher communications (28.9%)

Teachers identified *Teagmháil le tuistí (contact with parents)* as the second most significant activity for involving parents/guardians in supporting their children's progress in mathematics. The majority of teachers' references to parent/teacher communications involved face-to-face contact. This contact included formal annual events organised for the parents/guardians of a particular year group(s) and more frequent informal events involving one-to-one contact between the teacher and individual parents/guardians. A number of teachers reported using annual meetings, particularly at the beginning of a new school year, for the purpose of *explaining the curriculum*. Other infrequent meetings cited by teachers included those designed to *keep parents abreast of changes in the curriculum e.g. methods of subtraction used in school*. One teacher reported using a meeting to ensure the *language [used] in school [was] clearly explained*. Another teacher described using a meeting to [explain] *the importance of play with sand, bricks and water, etc.*

In their commentary on more informal parent/teacher meetings, a number of teachers identified their *open-door policy* as a way of encouraging parental involvement. Teachers reported using these meetings for the purpose of *discussing problems* or reporting difficulties and *keeping parents informed of difficulties.* One teacher described using meetings as a means of *alerting parents to problems their child might have and the practical ways [to address these problems].* Other teachers noted the importance of one-to-one meetings for discussing *class tests and results of standardised tests.* The importance of parent/teacher meetings in supporting children with special educational needs was also identified. One teacher described using meetings for *consultation and collaboration via [a] child's abilities, difficulties and needs [in order to] assist in building a pupil's IEP with priorities and targets.* Another teacher explained that the meetings facilitated *regular reviews [of the IEP] on an informal basis with parents.*

3. Encouraging help with mathematical tables (28.6%)

Teachers reported parents/guardians supporting children's learning of mathematical tables as being the third most significant activity in involving parents/guardians in progressing their children's learning in mathematics. Teachers predominantly used two to three word phrases in their reportage of this activity, providing limited information regarding how parents/guardians were encouraged to use tables as a means of supporting children's learning. Many teachers used words such as *asking, examining, hearing and testing* in referring to parents'/guardians' work with their children based on tables. Where teachers provided more expansive commentary on the use of tables, they indicated an emphasis on supporting and enabling children to 'learn' tables based on an understanding of the number facts and relationships concerned: *encourage parental involvement in learning of tables and enlisting their* [parents'/guardians'] *help in encouraging memorisation of table facts.*

4. Encouraging help with contextualising maths (13.1%)

[Parents] *drawing the children's attention to maths in their environment* was reported by teachers as being the fourth most significant way of involving parents/guardians in supporting children's learning in mathematics, although few teachers indicated how they support this. One teacher commented how he/she encouraged parents/guardians *to use the environment to 'do Maths' in a fun way.* Another teacher reported providing *advice for continuing mathematical learning at home.* Many teachers exemplified how parents/guardians linked mathematics to their children's day-to-day experiences. One teacher reported advising parents/guardians to focus on *airgead agus am – ag siopadóireacht gach seachtain, ag eirí don scoil/ithe bricfeasta/codlaigh, srl. (money and time – shopping each week, getting up for school, eating breakfast, sleep time etc.),* while another teacher drew attention to activities for children in more senior classes *e.g., Managing pocket money, practical exercises with time, shopping, cooking, measuring.*

Sharing assessment information with parents was identified by teachers as being the fifth most significant way of involving parents/guardians in their children's learning.

MATHEMATICS: SUCCESSES

> **Teacher Template, Mathematics Curriculum: Q20**
> **The greatest success which I have experienced in implementing the Mathematics Curriculum is:**

A total of 612 teachers responded to this question representing an 85.1% response rate out of 719. Analysis of teachers' responses identified seven successes which teachers reported to have experienced in implementing the Mathematics Curriculum. The four most frequently reported successes by respondents are discussed after Table 4.17.

Table 4.17: Teachers' successes with the Mathematics Curriculum		
Successes	Teachers	
	n	%
Practical work	357	58.3
Children's enjoyment of maths	133	21.7
Specific content	113	18.5
Oral work	67	10.9
Support for less able children	67	10.9
Children's awareness of relevance of maths in everyday life	63	10.3
Organisational strategies	35	5.7

n=612

1. Practical work (58.3%)

Linking with teachers' responses to the impact of the Mathematics Curriculum on children's learning, teachers identified *níos mó béim ar obair phraicticiúl (more emphasis on practical work)* as their main success in implementing mathematics. One teacher expressed this success as *using more practical activities in teaching new concepts, i.e. a materials based approach*. Another teacher captured the essence of his/her success in using practical work as *constructivism at work*. Many teachers associated their increased use of practical work with children's better understanding of the content of the Mathematics Curriculum: *The greater emphasis on the use of a wide variety of concrete materials means the children have a greater understanding of maths concepts.* Some teachers credited this better understanding with children's enjoyment of, and experience of success with the subject, again mirroring teachers' responses when asked about the impact of the curriculum on children's learning. One teacher reported *with the emphasis on practical work, the children are more willing to reason for themselves and have more confidence in giving an educated guess.* Another teacher commented how *the use of concrete materials to aid understanding makes learning fun.*

Some teachers drew attention to their success in using specific types of practical work and particular games; *Children enjoy the maths games such as BINGO.* Other teachers reported on the success they experienced in using ICT in mathematics; *Greater use of the computer to back up topics covered in class.* One teacher commented on how *children love using the computer software.* Triangulating this data with that presented earlier in the context of problem-solving activities used with children, we know that children in junior infants to second classes are more likely to have opportunities to use games. In the case of ICT, fewer teachers responded to how they had used ICT in their classrooms than has been typical across other questions, suggesting that a significant number of teachers do not use ICT to any great extent in their teaching of mathematics.

2. Children's enjoyment of maths (28.9%)

Teachers identified children's enjoyment of mathematics as the second greatest success they experienced in implementing the Mathematics Curriculum; *seeing children enjoy the subject.* One teacher noted how this enjoyment leads to *a greater satisfaction from it [mathematics].* A number of teachers related children's enjoyment of mathematics to *greater success in mathematics,* and [the creation of] *increased enthusiasm.* Expanding on the association with enthusiasm, one teacher reported how *the enthusiasm children have for their maths work [results] in them [the children] asking to do it [mathematics] at other times of the day.* Another teacher noted that children's enjoyment of mathematics has resulted in *children's attitudes improving towards maths.* A number of teachers commented how *children, who didn't enjoy maths in the past, enjoy it now.* These teachers attributed this attitudinal change to the 1999 curriculum and its changes in emphases, again echoing teachers' responses to the impact of the curriculum on children's learning, as discussed earlier in the section.

3. Specific content (18.5%)

Teachers noted success in specific content areas as their third greatest success in implementing the Mathematics Curriculum. Content areas in which teachers reported success included the *development of estimation skills* and *the use of calculators*. Some teachers commented on curriculum content, to which they considered having paid minimal attention prior to the introduction of the Mathematics Curriculum in 1999. One teacher identified [teaching] Algebra as his/her greatest success since *I previously only skimmed on it*. Other teachers drew attention to curriculum content across the various classes from infants to 6th; *early mathematical activities, greater emphasis on number work, place value, tens and units, in senior classes – more work on logic, pattern and problem-solving, practical work such as measuring and weighing, data work and the introduction of chance and probability.* The *new emphasis on mental maths* also received particular attention. Some teachers reported their success in building mental maths into all their lessons: [I use] *mental maths warm-up prior to class. I use this to address misconceptions, and to revise work already done, and to get the children thinking mathematically.*

4. Oral work (10.9%)

 Teachers identified the use of oral work in teaching mathematics as their fourth greatest success in implementing the Mathematics Curriculum. One teacher reported *sílim trí gach rud a phlé os ard sula gcuirtear peann le páipéar, a chabhraíonn go mór (I think discussing each thing before pen is put to paper really helps [the children]).* Another teacher linked this greater emphasis on oral work to an increase in *the children's understanding and self-esteem when it comes to difficult problems in mathematics.* Many teachers also drew attention to their *greater emphasis on [mathematical] language development*. As with the impact of increased emphasis on oral work, some teachers credited this focus on language development to *a better understanding of maths*. Two teachers, in

describing how they used oral work in implementing the curriculum, spoke of their *frequent use of oral maths as a means of revision*, and their strategy of asking *the children oral problems everyday*. Another teacher reported using *word problems* more often to *encourage oral discussions.*

The next question explores teachers' reported successes with the Mathematics Curriculum in more detail, through focus group interviews with teachers and principals, and with children in the case study schools.

> **Teacher and principal focus group interview, Mathematics**
> **Question: What have been your greatest successes with the Mathematics Curriculum?**

Mirroring the findings from the teacher template, teachers and principals reported their successes as using concrete materials, developing a more hands-on approach to mathematical learning, increasing children's awareness of the relevance of maths to everyday life, and games.

Concrete materials

Teachers in all six schools referred to their use of concrete materials with children in maths, as one of their key successes with the Mathematics Curriculum. Teachers explained, *We have moved more towards the concrete materials and we have ways in bringing children with us.* A teacher in the gaelscoil described her strategies for using concrete materials with children.

I would let the children in infants and even up as far as Rang 2 spend a lot of time with the concrete materials. They also do maths on the computer. The packages are good for reinforcing tables, and they enjoy it. We have tried to make maths more interesting for the children by not depending on the textbooks as much.

Ligfinn do na páistí san naíonáin go dtí Rang 2 a lán ama a chaitheamh leis an ábhar coincréideach. Déanann siad an Mata ar an ríomhaire chomh maith. Tá na pacáistí go maith chun na táblaí a dhaingniú, agus is breá leo iad. Tá iarracht déanta againn gan dul i muinín na dtéacsleabhar chomh mór sin, agus sa tslí sin, an Mata a dhéanamh níos suimiúla dóibh. (Gaelscoil an Ghleanna)

A teacher in St. Bernadette's noted that teachers in her school had *accumulated a bank of maths resources which we use more than ever because there's been no text book that has shone like a beacon [in maths].* Teachers in Scoil Naomh Muire described their use of the *school and the immediate environment to teach shape and space through practical activities.*

Hands-on methods of learning

Related to their use of concrete materials in mathematics, teachers cited hands-on activities as another st[...] with the Mathematics Curriculum.

... that children are more engaged in the mathematics and are more active. There is a greater emphasis on active methods in the new curriculum, and we have been using them in teaching.

Is deise ... atá ag na páistí sa Mhata agus go bhfuil siad níos gníomhaí. Tá béim níos mó ar mhodhanna gníomhacha sa churaclam nua, agus táid in úsáid againn sa teagasc.
(Gaelscoil an Ghleanna)

Teachers in St. Helen's noted that *children tend to do the work themselves.* A teacher explained.

If you are using a balance, and they have a teddy and they are putting the cubes in and counting, they are doing that themselves at each desk and the equipment is available for that. It puts it into reality and they go home

thinking how much would that weigh and then you are trying to estimate and guess. (St. Helen's)

Teachers explained that for many of them, hands-on learning required a change in their own thinking about how children can best learn; *I think we have got better at tolerating new activities. We used to think that they [children] should be sitting there doing that, now we can cope, and if there is a bit of noise going on, so long as it is focused we can live with it.* Teachers referred to maths discussion as part of this noise in maths, e.g. *most of the time the children are discussing, 'how many do you think?' and 'I didn't think it was going to weigh that much', so their language is improving as well, and that's new, it's something in the curriculum.*

Relevance of mathematics

Teachers in five schools cited increased relevance of mathematics for children, as another success with the Mathematics Curriculum. A teacher in St. Helen's noted, I *think we have managed to make maths more interesting and relevant.*

> *I would say that the relevance of the maths going on in the school is very good. You see a class deciding on special offers, 'Is it really good value or is it not?'. That is really relevant to life so I think the fact that maths can express into the children's life while covering all the strands is very good, it's one success.* (St. Edward's)

A teacher in Gaelscoil an Ghleanna expressed a similar viewpoint explaining, *they [children] can now see the relevance of mathematics in their own lives.*

Mathematics games

Teachers in three schools cited their use of maths games as a success with the Mathematics Curriculum. Teachers in St. Edwards explained that *they [children] do enjoy the games; it's a way of concreting what you have done on the practical side.* Teachers in LETNS noted that they have invited parents *to come in and do games in maths … we're really going to continue to work on that next year. Once or twice a week parents would take out just one or two groups and do a particular maths game.*

> **Principal Interview**
> **Question: What have been your greatest successes in your role as principal, implementing the Primary School Curriculum in your school?**

The Mathematics Curriculum is based on the premise that children are encouraged to learn new ideas and concepts when they use language to discuss these and seek clarification; *Through discussion, the child becomes aware of the characteristics of a task. He/she must be encouraged to use the correct vocabulary needed for a particular task* (p.4). One of the concerns for the review of the Mathematics Curriculum was to establish to what extent and to what effect this focus on oral language in mathematics was a feature of practice within schools. Changes in methods and approaches for teaching and learning mathematics (described in Section 4) were noted in interviews with all six principals. For example, the principal of St. Edward's described changes in practice for teaching mathematics within her school which involve active learning methods:

There is now lots of oral work. The emphasis isn't sitting down quietly and doing your maths. The emphasis is on paired work, which takes the pressure off them, group work, maths trails. Yes, there is a common approach to language, but we have discovered on our last review day that we have even more work to do. (St. Edward's)

The schools that were interviewed reported that effecting the changes in teaching practices promoted in the curriculum is an on-going process that poses different challenges according to the experiences within each of the schools. For example, for the principal of Gaelscoil an Ghleanna there was a challenge realising *leanúnachas ó rang go rang in úsáid na teanga sa mhatamaitic (Consistency between classes in the use of language in mathematics)*. The principal of St. Bernadette's noted that through whole school planning there was common use of mathematical signs and symbols across classes, but added that teachers had ongoing discussions regarding the role of language in problem solving:

We have spoken about maths and we have had some agreement and some disagreement around problem solving, around use of language in terms of plus and minus signs, etc. and now we have common usage of those signs across the classes. (St. Bernadette's)

Data from principals suggests that while teachers have provided increased opportunities for talk and discussion among children in mathematics using different activity methods, work still remains regarding the use of oral language in more complex mathematics activities which support higher order thinking and problem solving.

MATHEMATICS: CHALLENGES

Teacher Template Study
Mathematics Curriculum: Q21
The greatest challenge which I have experienced in implementing the Mathematics Curriculum is:

In all, 614 teachers responded to this question, representing an 85.4% response rate out of 719. Analysis of the teachers' responses identified five challenges experienced by teachers in implementing the Mathematics Curriculum. Discussion of the four most frequently mentioned challenges follows Table 4.18.

Table 4.18: Teachers' challenges with the Mathematics Curriculum		
Successes	Teachers	
	n	%
Catering for the range of children's mathematical abilities/time	295	48.0
Specific content	169	27.5
Resources	114	18.6
Organisational strategies/class size	111	18.1
Breadth of the curriculum	90	14.7

n=614

1. Catering for the range of children's mathematical abilities (48.0%)

Implementing the curriculum across a range of levels and abilities was the greatest challenge reported by teachers in implementing the Mathematics Curriculum. Many teachers drew attention to the difficulties they experienced in *catering for individual differences.* One teacher reported that

> *Maths is a subject where the levels of each child become very apparent and the teacher needs to be very organised in order to challenge and keep challenging the more competent children and allow herself time for mini-lessons with the weaker children.*

Developing this point further, another teacher commented; *There are so many levels and abilities in maths that it is difficult to keep the children appropriately challenged and having time to give to those who cannot meet the challenge or haven't the confidence to attempt the task.* The shortage of time to support children of different mathematical abilities, together with large class sizes emerged in many teachers' comments; *lack of time - difficulty in giving one to one attention as the class is so big.* Reflecting on the issue of time, one teacher noted how *other subjects demand their own time but maths needs special attention and it is difficult to give out the individual attention needed and still cover the course.* The time factor was also noted with regard to the use of group work as an organisational strategy in providing for children's different mathematical abilities; *dealing with different abilities [through the] use of group work [is] time consuming.*

2. Specific curriculum content (27.5%)

Teachers identified specific content areas of the Mathematics Curriculum as presenting the second greatest challenge. Concepts and skills development both featured in teachers' responses. While a wide range of concepts were reported as presenting challenge, the most frequently mentioned included those relating to *number, algebra, data, chance* and *measures.* Another teacher commented on *pattern – an area of difficulty I find.* In elaborating on some of the concepts presenting challenge in the implementation process, one teacher reported shortfalls in the Mathematics Curriculum itself; *The strand of data and the strand unit of chance are difficult and are not covered sufficiently*

in the curriculum. As reported in the early part of this section, teachers identified data as the strand they found least useful in supporting them in planning for and teaching mathematics.

In reporting on challenges experienced in the areas of skills development, a number of teachers drew attention to *problem-solving skills* and *estimation*. Children's memorization of tables was also identified by a number of teachers as creating a challenge for them in implementing the Mathematics Curriculum. In particular, some teachers reflected on how the difficulties children experienced with tables impacted on other mathematical learning; *memorisation of tables, Slowness of adding and subtracting – the children should have the maths tables off by heart*. Mathematical language was also identified as a source of challenge teachers experienced in curriculum implementation; *some children's maths vocabulary is insufficient thus leaving them with problems interpreting problems.* As already reported, teachers identified the promotion and use of mathematical language as an important strategy they used in creating a maths–rich environment.

3. Resources (18.6%)

Níl go leor áiseanna nó am le fáil (not enough resources or time available) summarises what teachers identified as being their third greatest challenge in implementing the Mathematics Curriculum. Many teachers reported the challenge they faced in accessing concrete materials for use in teaching the different strands and strand units of the curriculum, *lack of equipment or money for equipment.* Some teachers noted their difficulty in *providing enough concrete materials for every child* as their greatest challenge in implementing the Mathematics Curriculum.

A lack of space and time was also identified as a resource challenge, *time and space to provide the children with opportunities to use a wide*

variety of concrete materials. Some teachers also noted the shortage of manpower in implementing the curriculum. One teacher drew attention to the necessity to have an *assistant to help to implement the different strands.* Another teacher outlined how *class size in a multi-class can make assisting individuals with specific maths difficulties really impossible in terms of being effective, especially when there is no support for a learning support programme in maths.* Other resource challenges reported by teachers included the *lack of reinforcement of [mathematical] concepts at home [by parents]* and a *lack of professional development courses [for teachers] re the maths curriculum.*

4. Organisational strategies (18.1%)

Teachers identified classroom organization, especially with regard to larger classes and multi-classes, as the fourth greatest challenge they experienced in implementing the Mathematics Curriculum. *Planning and managing multiple classes* received particular attention in teachers' comments. One teacher reported, *I have two classes, and a lot of organization and planning is required especially when you're beginning a new topic with one class, to be able to spend time and assist the other class.* Another teacher referred to the act of *juggling* the demands created by multi–class groupings and specific content areas of the curriculum; *co-ordinating three or four class levels when teaching maths strands such as number or algebra.* The challenge of organizing the teaching of different programmes for different class groupings was raised by many teachers, *trying to follow four different programmes at the one time.* Group work was identified as being particularly challenging in teaching mathematics, echoing teachers' concerns regarding the challenge of catering for the range of children's mathematical abilities. One teacher commented on the challenge of *grúpaí a eagrú sa chaoi go mbeadh an grúpa lag ag déanamh obair féiliúnach agus dúshlán a thabhairt don ghrúpa láidir sa rang (to organise groups in a way that the weak group would be doing suitable work and the right challenge would be presented to*

the high ability group in the class). Another teacher reported, *Having a multi-class [and the difficulty] finding time to let the children work in groups with appropriate materials.*

The next question explores these findings in more detail, through focus group interviews with teachers and principals in the case study schools.

> **Teacher and principal focus group interview, Mathematics**
> Question: What have been your greatest challenges in the Mathematics Curriculum?

Echoing many of the findings reported by teachers through the Teacher Template Study, teachers and principals identified 2 challenges, which are explained below.

Methods of teaching mathematics

Teachers in four schools suggested that they would benefit from additional support in using different teaching methods in mathematics. The principal in St. Bernadette's school noted, *With the newer things there is more hands on work expected, it has practical teething problems. We are on board for agreeing the hands on is good, the next part is how do you do it successfully?* A teacher in St. Helen's added, *It hasn't been as easy to spread the Gospel according to Maths as it has been with other subjects… when we get to talk about Maths, a wall descends! As a staff, I don't think we've shifted that wall…we need more help with the methods.* A teacher in Scoil Naomh Muire explained, *we can also use discovery learning, but that is also a challenge for us.* A teacher in Gaelscoil an Ghleanna explained that more support is needed.

To gauge the level and teach according to the different levels in the class. There is a lot of talk about differentiation. There are many ways to differentiate, differentiation by outcome and planned differentiation, individual education plans, and providing extra support to children. But when you have mixed classes as we do, it is quite challenging.

An leibhéal a mheas agus múineadh dá réir ag cur na leibhéal éagsúla sa rang san áireamh. Is mór an chaint atá ar dhifreálú (differentiation). Is iomaí bealaí atá ann chun difreálú a chur i bhfeidhm, sa toradh foghlama, pleananna oideachais do pháistí aonair, agus tacaíocht bhreise a sholáthar do pháistí. Ach nuair is rang measctha atá agat, is dúshlan mór é. (Gaelscoil an Ghleanna)

Teachers reported, *More help needed with managing big classes and different abilities.* They reiterated the classroom organisation and management problems posed by a range of children's learning abilities and needs, combined with the range of developmental stages and ages in multi-class situations.

Time

Teachers identified time as a further challenge in working with the Mathematics Curriculum, *we're certainly pushed for time in all of the things.* A teacher in St. Edward's noted the particular challenge of having time for individual children, and for completing the Mathematics Curriculum in time:

> *The challenge would be getting time to prepare appropriate maths schemes for the level within your classes … and one of the challenges at senior level is to try and cover a certain percentage of the programme by Easter when you have assessment tests coming up.*

The challenge of finding sufficient time for curriculum planning and teaching in mathematics, was also cited as a challenge in English and visual arts.

MATHEMATICS: PRIORITIES

> **Teacher Template Study, Mathematics Curriculum: Q22**
>
> In furthering my own implementation of the Mathematics Curriculum, I would like to prioritise the following:

A total of 587 teachers responded to this question, representing an 81.6% response rate out of 719. Analysis of responses to this question identified seven priorities for teachers in furthering their own implementation of the Mathematics Curriculum. A discussion of the four most frequently cited priorities follows Table 4.19.

Table 4.19: Teachers' priorities for the Mathematics Curriculum		
Successes	Teachers	
	n	%
Specific curriculum content	255	43.4
Practical work	223	37.9
Mathematical language	90	15.3
Assessment	59	10.1
Awareness of maths in daily life	57	9.7
Range of children's mathematical abilities	53	9.0
Organisational strategies	50	8.5

n=587

1. Specific curriculum content (43.4%)

Teachers identified focusing on specific content areas in the Mathematics Curriculum as their main priority in furthering their own curriculum implementation. While there was great diversity in the content areas highlighted by the teachers as a group, some were prioritised more frequently than others. Many teachers identified number work as an area to which they wished to give particular attention; *I would like to prioritise number work using a wide variety of*

activities to develop number work linked with the strands. In prioritising specific aspects of number, one teacher identified *a greater emphasis on [children's] understanding of place value.* Other teachers planned to focus on the different strategies for working with numbers; *front-end strategy, clustering strategy, rounding and special numbers strategy.* Interestingly, number (strand) was identified by teachers as being the most useful strand in supporting their work in mathematics, with place value being one of the most useful strand units. *Béim ar réiteach fadhbanna* (emphasis on problem-solving) was also a priority for many teachers. One teacher aimed *to give children guides, pointers, a strategy to help them tackle a problem*.

Teachers also wanted to focus on *length, width, capacity, time and money* by providing *more time and more opportunity to allow pupils to measure objects in class and engage in practical measuring tasks daily.* More work on tables was a priority for some teachers, linking with teachers' earlier reportage of how children's experience of difficulties in memorising tables impacts on their work in mathematics in general. One teacher prioritised *finding more enjoyable ways for children to learn tables,* while other teachers concentrated on supporting children to achieve *fast recall of tables.* For some teachers, *making more time for mental maths* was cited as a priority.

2. Practical work (37.9%)

Teachers identified *using more hands-on learning* as their second greatest priority in furthering their implementation of the Mathematics Curriculum. This is interesting given that teachers reported their use of practical work as being their greatest success in implementing the curriculum. Many teachers reported wanting to increase their use of *concrete materials* in mathematics lessons. One teacher noted the importance of this to *aid children's learning.* Another teacher commented on *iliomad bealaí a bheith agam le hábhair*

choinchréideacha a úsáid chun na snáthaonaid éagsúla a chur faoi bhráid na bpáistí (having different ways of using concrete materials to help children develop understanding in the various strand units [of the curriculum]. Increased use of concrete materials would create *more opportunity to allow children to investigate for themselves.* Some teachers also identified introducing the use of games to support children's learning in mathematics as a priority to further their implementation of mathematics. One teacher described wanting to do this *to make maths appear more as fun-time.* Some teachers made specific reference to the *increased use of calculators in my classroom.* ICT was another area of priority for teachers; *becoming more familiarised with more ICT maths based software* in order to enable *better use of ICT.*

3. Mathematical language (15.3%)

Teachers identified giving greater attention to *mathematical language* as their third priority in their teaching of the Mathematics Curriculum. Some teachers commented on their increased awareness of the *need for common mathematical language throughout the school.* One teacher noted the importance of achieving this through *building up [children's] core maths language.* In building up this language, some teachers indicated that their goal was, *To develop the child's understanding of maths language [in order] to articulate accurately.* Focusing on oral mathematical work was also among teachers' priorities relating to mathematical language, *greater emphasis on solving simple oral problems.* One teacher prioritised, *Further development of oral work as opposed to written tasks,* in his/her teaching of mathematics.

4. Assessment (10.1%)

Teachers identified carrying out more assessment as their fourth priority in progressing their implementation of the Mathematics Curriculum. Many teachers highlighted their goal to use *continuous assessment.* One teacher commented on using the information from

this continuous assessment to *feed back to parents and to children themselves.* Another teacher prioritised using the assessment information to identify and *to deal with any arising [mathematical] difficulties* the children may experience. *Greater individual assessment* of children's learning in mathematics and *recording each child's progress* emerged as a priority for some teachers. They identified this as being important *to realise the children's real level and abilities in maths.* In prioritising *assessing [children's mathematical learning] early,* some teachers drew particular attention to the use of *simple diagnostic tests for Juniors in May/June.* In elaborating on this priority, one teacher noted its purpose *in identifying children who need learning support. Using assessment suited to the revised curriculum* and using *assessment tools other than weekly tests* were also priorities for a small number of teachers, reiterating the concerns teachers expressed with regard to the unsuitability of assessment tools, as discussed earlier.

Some 57 teachers (9.7%) prioritised linking mathematics to children's everyday lives in furthering their implementation of the subject, while teachers identified this as the third greatest impact of the Mathematics Curriculum on children's learning. Building on teacher's identification of managing organisational strategies as the third greatest challenge in implementing the Mathematics Curriculum, 50 teachers (8.5%) prioritised this in progressing their work in the subject.

A summary of findings and recommendations from this section on the Mathematics Curriculum is presented in the Executive Summary at the beginning of this report.

SECTION 5:

ADDITIONAL FINDINGS

ON THE PRIMARY SCHOOL

CURRICULUM

ADDITIONAL FINDINGS ON THE PRIMARY SCHOOL CURRICULUM

This section of the report presents an analysis of findings from the Primary Curriculum Review which are not specific to English, visual arts and mathematics. These additional findings are presented for

- Children

- Parents

- Principals

- Teachers

Data presented in this section of the report were gathered through individual and focus group interviews in the six case study schools. The interview guides used for the case study are presented in Appendix B.

Interviews with Children

This part of Section five describes findings from interviews with children in the six case study schools. Interviews with small groups of 3 to 6 children were held in the school during the second term of the 2003/2004 school year. Interview guides are provided in Appendix B. Data from children has been organised according to the following headings:

- Involvement of parents

- Curriculum priorities

INVOLVEMENT OF PARENTS

> **Focus group interview with children: Questions**
> Can you tell me who looks at your homework and your
> schoolwork at home?
> Do you think your Mammy/Daddy/the person who looks
> after you, knows what work you're doing in school?
> How do they know?

Children in three schools identified four ways their parents are
involved in their learning in school: helping with homework, helping
children in school, attending school meetings, and fundraising for the
school.

Children in St. Bernadette's school reported that, *my parents helped me
out with maths during the year and with book lists and school reports.*
Children explained that, *sometimes when you learn something new you
ask your Mam and Dad to help you, as you might not pick it up that well
and later you can look it up on the Internet.* English and mathematics
were the subjects for which children most frequently reported
receiving help from their parents.

In section two of this report teachers reported that parents provide
on-site support for reading in the school. Children in fourth class
reported that parents also participated in their learning in school, by
assisting the teacher with practical, hands-on tasks:

Interviewer: *Do parents come into the classroom to help?*

Respondent: *Yes because there were a few experiments where you had to
guess what food there was and they also went out to the
garden to plant bulbs in the wild life garden and parents also
helped with that* (LETNS)

Children reported that parents also visited the school to meet with teachers and the principal. Their examples focused on social rather than academic concerns e.g., *my Mam came into third class and talked to principal and teacher because I was being bullied.* In St. Edward's school, fourth class children described an evening when children shared their project work with parents:

> *We had a fun day. All our projects and everything were stuck up on the walls in the hall for all the parents to come and see and there were games. They were selling cakes and old toys people brought in. We had a jumble sale. I had a game that it was a box and there was a clown's face on it. There was holes in his eyes and mouth and a hole in his nose and you had to try and get the balls through. There was a big monkey prize and loads of different prizes.* (St. Edward's)

The important role of parents in fundraising for their children's school was also described by children in St. Bernadette's school who explained that their parents go *bag packing in Dunnes Stores to raise money for school every year.*

CURRICULUM PRIORITIES

Children's interview: Questions
What was/is your (least/) favourite part of school? What did/do you like most/least about school?
If you could change anything about school, what would it be?

Data from children's interviews identified five sets of findings regarding what children want from school.

- Subject likes and dislikes

- Collaborative learning (pair work, group work)

- Active learning (hands-on activity, physical activity, play)

- Inquiry-based learning (ICT, choice)

- Authentic learning (projects with a real world focus)

Subject Likes And Dislikes

Section two of this report describes children's enthusiasm for visual arts learning, across the six case study schools. When asked to identify what learning they liked least in school, children in four of the six schools spoke about their dislike of Irish in particular. Second class in St. Helen's were unanimous in identifying Irish as their least favourite subject, explaining that it was uninteresting and involved too much work.

Interviewer: *What do you not like doing in school?*

Respondent: *Irish and tens and units.*

Respondent: *They are boring.*

Interviewer: *Daryl, what do you not like doing?*

Respondent: *Irish, because it is boring.*

Interviewer: *Irish again. What about you Ruth?*

Respondent: *Well I don't like doing Irish and I don't like doing Maths.*

Interviewer: *Why do you think people don't like Irish? All of you told me you don't like Irish.*

Respondent: *I know. We always get bored and fall asleep and stuff.*

Respondent: *There are so many words to remember.*

Respondent: *We forget the words.*

Respondent: *We have to do a load of pages and we have to do it every day*
                    and it is boring! (St. Helen's)

When another group of second class children was asked what they would choose to get rid of in school if they could, one child responded, to his group's approval, *Irish and everything we hate.*

Second class children in a different school also reported their dislike of Irish.

Interviewer: *What did you like least this year?*

Respondent: *Irish, Irish, Irish, Irish and Homework.* (LETNS)

Similarly, fifth class children in St. Bernadette's explained that if they could design a new school, *we would do hardly any Irish because I don't think it is necessary. We don't use it. It's only like the gaeltacht school [that uses it]. If you want to do English go to this school.* One child in Gaelscoil an Ghleanna also said she'd like more English and less Irish:

We do Irish all day. Other schools do Irish for only an hour a day. It's good to have better Irish than them, but I would like to do some more English.	*Déanaimid an Ghaeilge an lá ar fad, faid is nach ndéanann scoileanna eile é ach ar feadh uair a' chloig. Tá sé go maith go bhfuil Gaeilge níos fearr againn ná acusan, ach ba mhaith liom níos mó Béarla a dhéanamh.*
(Gaelscoil an Ghleanna)	

Another child in the Gaelscoil explained the importance of learning Irish in school.

It's good that we have good Irish, because it's our national language. You need to be able to read and write when you grow up, and to be able to go to university.	*Tá sé go maith go bhfuil Gaeilge mhaith againn, mar gurb í ár dteanga náisiúnta í. Tá an scríobh agus an léamh ag teastáil uait nuair a fhásann tú suas, agus chun dul chun na hollscoile.*
(Gaelscoil an Ghleanna)	

236

Children in one of the four English-medium schools (St. Edward's) reported liking Irish. When asked what they liked doing in Irish, they explained that they liked to work in groups a lot and used a range of games and activities. This finding suggests that children's like and dislike of a subject at Primary may be determined to a large extent by the types of activities they have opportunities to engage in when learning in school. Further discussion of the importance of active learning, through games and activities, is provided elsewhere in this section.

Across all six schools, the reasons children reported for liking one subject more than another were linked with the extent to which their curriculum experiences involved collaborative learning involving decision making in pairs and groups, active learning using hands-on-methods, inquiry-based learning involving research and ICT, and authentic learning through projects and real-world studies. The following quotation from a group of fourth class children is indicative of the types of learning children reported enjoying, in all schools.

Interviewer: *If I was to ask you about your favourite part this year, what are the things you really liked?*

Respondent: *When we learned about the Celts.*

Respondent: *When we did football.*

Respondent: *When we did live projects about the people, all the differences.*

Respondent: *The projects about the Greeks and Greek Gods and how they lived.*

Respondent: *The experiments we did together.*

Respondent: *The songs we looked at and the bands and artists.* (LETNS)

The absence of collaborative, active, enquiry-based, and authentic learning, also described the activities children reported liking least.

Interviewer: *What did you like least in the year?*

Respondent: *Stories in Irish and English, we didn't get to pick the characters, teacher gave them to us.*

Respondent: *In maths she didn't really help us with our maths, she just gave us them to do.*

Respondent: *In Irish I hated the way when you're writing stories, I'd prefer if it was like the writer book because if you had to write a story I don't like but let us choose what we want to write about.*

Respondent: *We didn't have much PE.* (LETNS)

Children's positive and negative experiences of learning in school are reported under the following interdependent rather than discrete headings:

- Collaborative learning (pair work, group work)

- Active learning (hands-on activity, physical activity, play)

- Inquiry-based learning (ICT, choice)

- Authentic learning (project work with a real world focus)

Children reported that the attitude of their teacher toward teaching and learning in specific subjects also contributed to their likes and dislikes. For example, one fourth class group explained that their teacher's love of mathematics was the reason for their own interest in maths.

Interviewer: Tell me your favourite part of Maths?

Respondent: My favourite part of Maths is all of it.

Respondent   Yeah, we all like Maths.

Interviewer: So there is no part of Maths that you are not fond of?

Respondent: Our Teacher loves it so we like it. (St. Edward's)

Collaborative Learning

Children's descriptions of their experiences with group work ranged from using group work to organise desks and seating patterns, to using group work for different kinds of learning with others. The discussion of children's responses below follows this continuum from the less complex to more complex uses of group work for collaborative learning.

Fourth class children explained that the teacher uses group work as a method for organising and conserving visual arts resources.

> *When she also puts us into groups in Art, she doesn't want to use all the paint, she puts five at one table, five at the other table and one table might get the colour orange, the colour green and the colour blue. That is what we did for the sponge painting. We got rollers and rolled the paint on the object and then put it on the page, but we all had to use the same colour at the table. You couldn't change your colour. (St. Edward's)*

Similarly, second class children in St. Helen's told us that groups are used to organise different activity centres in one classroom e.g., *sometimes we do sums and other people do weighing and then we swap around*. When asked what they do in groups, children in one second class suggested that group work is often a seating arrangement, which facilitates peer teaching.

Interviewer: *When I was in your classroom I saw that you sit in groups.*
                  Do you work in groups?

Respondent: *Not all the time.*

Interviewer: *Do you work with the people at your group?*

Respondent: *No… Maybe sometimes we do.*

Interviewer: *Sometimes the groups change, is that right?*

Respondent: *I go into the blue group. If you get stuck on something you*
                  just ask the teacher in the blue group. (St. Helen's)

Children explained that groups are used to giving help e.g., *I helped
her reading,* and to receiving help e.g., *It's a lot easier if you don't know
something that they know and you can get help.* One child noted that,
when you help someone…they will help you back. When asked which
they liked most – working by themselves or with others, children
chose working collaboratively because of the opportunities to give
help and get help.

Interviewer: *Which do you prefer, working in a group or working on your*
                  own?

Respondent: *In a group. Because you can help each other and if you are*
                  working on your own, you wouldn't be allowed ask anybody.
                  You have to do it by yourself.

Respondent: *If you are stuck on something, you can ask the person beside*
                  you or on your team. (St. Edward's)

As well as helping others, children in three schools explained that
they used groups to share tasks in a project e.g., *we would do it in turns
and one of us would be looking for information on the Internet and the other
one would be looking for a picture of their boat or a portrait of them.*

Children in fourth and fifth classes reported that they had worked collaboratively on a few projects.

Children explained that they liked learning with others. One child in fifth class explained that what he most liked about school was, *working in groups together because you work with different people. Sometimes if you don't know the answer you can ask other people.* His peers nodded in agreement. A fourth class child emphasised this benefit of working together, *I like working with other people better than working on my own because if you put two minds together you get more clever and things like that.*

Only two children expressed some unhappiness with group work. A fourth class child explained that it wasn't always easy to share ideas, *I think it's good with other people but I don't like the way you have to keep the view of other people, talk about whose view it is.* Another fourth class child (from the same group) explained that collaboration is difficult when it lacks individual accountability,

> *The thing I didn't like about that project when I was in a group there was two people working really, really hard and really, really well and they didn't get to bring it home. The person who did barely anything on it got to bring it home* (LETNS).

Active Learning

Children reported three types of active learning: hands-on activities, physical activity, and play and games.

Children's enjoyment of practical, hands-on activities has been described in the findings on visual arts and mathematics in particular. When asked what they might change, if anything about school, children explained they would like a lot more hands-on-work e.g., *for science we had to bring in flies and we looked at them under the*

microscope. We'd definitely add that – more science, and the fly thing, to our new school.

Children's desire for more active learning in school was also echoed in their hopes for more physical education: Children in four schools reported that they would like more physical education.

> *I think we should have a lot more sport to do in school, like football. We don't really have enough time for it in school. I'd like more time spent on PE. Sometimes when we do PE, one week it would be good, then the next it wouldn't be good like we'd do rounders one week and then the next week we'd do something boring without much going on, so it wouldn't always be good.* (St. Bernadette's, fifth class)

If they were designing a new school, children in St. Bernadette's said they would include more physical activity, *not just games, but more working out, fitness and health.* A child in another school added, *[I'd like] more swimming because we only get to do it four times [a year].*

Children reported that active learning through play should also be part of how they learn in school. Children in senior infants described how much they missed play in their new class e.g., *the only thing I don't like doing is when I can't play with the toys.* When asked how they'd like to change school if they could, they asked for more play, *games and hide and seek.* Second class pupils explained that what they liked about play was the opportunity to role-play having a real job in the real world.

Interviewer   *Were there things that you did in Early Start every day that you miss?*

Respondent: *I used to always dress up as a Fireman and I miss that.*

Interviewer: *Is that because you wanted to be a Fireman?*

Respondent: *I wanted to be one then, but now I want to be a footballer 'cos I play football.*

Respondent: *[I miss] dressing up as well. Because I would dress up as a dancer 'cos I want to be a dancer when I grow up and a singer.* (St. Helen's)

The younger children weren't the only ones who wanted more play in school. Children in fourth and fifth classes also talked enthusiastically about wanting more *board games, table games* and *computer games* for learning in school. A fourth class child in LETNS suggested that in English, *instead of just learning, [it would be better to] learn in playing games so that you actually know the word that you've just done.* Similarly, findings reported for Gaeilge in this section note that children in one English-medium case study school reported liking Irish because they used a range of games and activities e.g., *[we use] a game, 'Simon says' in Irish. 'Deir Simon, seas suas'.* Fifth class children in St. Bernadette's explained that if they were designing a new school, *maybe in Irish you could do like more [of the game] Hang-man because sometimes we do that to learn words, and less Irish writing in general.*

Concurring with the findings on collaborative learning, children in second class explained how important it is to have someone to play with, when asked what they most liked about school.

Respondent: *I have Matthew to play with me but sometimes he wants to play football and then I have no one to play with.*

Interviewer: *It is important that we all play together?*

Respondent: *Yeah. I'm playing with Paul today.* (St. Helen's)

Children's interest in greater use of ICT for active learning and play is discussed below.

Inquiry–Based Learning

ICT

The potential of ICT to motivate students was evident in children's discussions about what they most liked about school, and what they would like more of. In all six schools, children reported that they *love using computers and would like a lot more computers* in school. Children told us they used ICT at home, *I like playing my playstation. I like different things from the computer at home.* But they reported limited access to, and periodic use of, computers in school. A fourth class child told us, *we've been collecting Tesco Tokens and we will get a computer and we might get a video camera and maybe a DVD player. Oh, and a supply of calculators for our class. That would be magic!* Children's uses of the computer ranged from checking spellings to doing research for projects. The types of computer uses described by children are summarised below.

Children described their use of ICT as a visual aid for learning, *we use the Data Protector, that is when you put something with no back on it, and it reflects up on the board and we can all see it.* ICT also provided an aid to reading; second class children in St. Helen's told us they used the computer for reading.

Interviewer: *Is there a computer behind the teacher's table? Do you get to play with that?*

Respondent: *We do get to play with it. We were playing with it today!*

Interviewer: *What things do you do on the computer?*

Respondent: *We do Sunny Street.*

Respondent: *Sunny Street are books we read.* (St. Helen's)

To support their writing, children reported using word processing software:

The computer is good for correcting spelling mistakes and grammar. Word has Spell Check. That's one of the big advantages with Word.

Tá an ríomhaire go maith do na botúin litrithe agus gramadaí. Tá Spell Check le fáil ar Word – ceann de na buntáistí a bhaineann le Word.

(Gaelscoil an Ghleanna)

Children in third class in Scoil Naomh Muire described using presentation software to present their work in different subjects:

We have a computer and a printer in our classroom. We love to play on the computer. Our favourite game is Hyper studio. We are making a book now about us and how BIG we are. David's Mammy came to our class and told us about David when he was small. He was a little rascal!

(Scoil Naomh Muire)

Tá ríomhaire agus printéir in ár seomra ranga. Is breá linn an súgradh ar an ríomhaire. Hyper studio an cluiche is fearr linn. Táimid a déanamh leabhair anois fúinn féin agus ar cé chomh mór agus atáimid. Tháinig Mamaí David chun na scoile chun insint dúinn ina thaobh nuair a bhí sé beag. Rógaire ceart a bhí ann.

Children in second class also reported looking forward to using the (computer room) computers to create presentations, *we have to go on the computer and we make slide shows. Every Thursday we go at half two.*

In addition to their use of word processing and publishing software, children reported using subject-specific software in English and mathematics e.g., *I use the computer to play maths games and operation games.*

Children in three schools described their use of ICT to support project-based learning. The motivational effects of using ICT in school, are described by one child, below:

The most recent thing we did was local history on Hyperstudio that really introduced computers to us. You can make your own projects whenever you want at home. I actually bought the programme because we were introduced to it at school…brilliant…I started my own ones at home.

(Gaelscoil an Ghleanna)

An rud is déanaí a dheineamar ná an léinn áitiúil ar Hyperstudio, a thug spléachadh ana mhaith dúinn ar ríomhairí. Is féidir leat do thionscnaimh féin a dhéanamh uair ar bith sa bhaile. Dá ndéarfainn é, cheannaíos an clár mé fhéin tar éis é a thriail ar scoil… ar fheabhas… thosnaíos mo thionsnaimh féin sa bhaile.

Children reported also using ICT to support project-based research, I used the computer for my project. I did my project on dolphins, me and Saoirse. We got a lot of information from the computer. One child described the research process as follows:

We did a project on South America. I liked going to the computer and using the Encarta CD ROM, and I also use the Internet at home. I did a lot of work with a pen first, and then I had to sort it out, and I typed it in. We scanned in a lot of drawings. I learned a lot doing the project.

Dheineamar tionscnamh ar Mheiriceá Theas. Thaitin dul chun an ríomhaire agus úsáid an Encarta CD ROM liom, agus an tIdirlíon chomh maith sa bhaile. Dheineas a lán oibre ar dtús le peann, agus ansin chuireas eagar air, agus chlóscríobhas isteach é. Dheineamar scannadh ar a lán léaráidí. D'fhoghlamaíos mórán.

(Gaelscoil an Ghleanna)

Children spoke positively about the amount of choice and control over their own learning which ICT afforded them e.g., *sometimes we use the Internet at home for projects and that makes it a lot more exciting because you can go where you want to go.*

Choice and learner control

Children in all six schools reported that they liked having control over their own learning by making choices in school. Children reported having choices regarding the tools or activities they used for learning and the content of their learning.

When asked why they liked art so much, children explained that being able to choose your own media and materials was very important. Children reported that project work provided many opportunities to exercise choice regarding the content of their learning. Fifth class children reported, *projects are good because you have a choice and we like to pick our own things.* When given the choice, children in fourth class reported selecting very different project topics, *we did a project on different types of people, some people did singers, artists, vets, suits, people holding hands, differences of other people.* A fourth class child (in a different school) explained, *we could do a project on Greece or we could have done a play. I chose to do a play. She did a project on racism. It was cool.*

Children reported that lack of choice diminished their enjoyment of learning, even with project works, a fourth class child reported, *project work is great but the teacher always has something lined up for us to do in the projects like whales, pollution, the famine, South America.* Children's perception of the amount of control over learning afforded to them in certain subjects was often a barometer for how much they claimed to like those subjects. For example, the little enthusiasm children expressed for Irish was described in terms of the monotony of doing so much prescribed written work every day. It is interesting to note that children reported little use of ICT, including educational software which provides many opportunities for children to exercise control over their own learning by choosing the content, pace and methods of learning.

Authentic Learning

When asked what the most important things they did in school were, children's responses included the range of subjects they love as well as the subjects they don't. Fourth class children were aware of the importance of doing well in school.

Interviewer: *Now this is a very important question. What do you think it is important to learn about?*

Respondent: *Art, it is my favourite subject.*

Respondent: *Art is my really favourite subject.*

Respondent: *Maths.*

Respondent: *I think it is important to learn football.*

Respondent: *I think it is important to learn about God and religion.*

Respondent: *I think it is good to learn so that when you go into secondary school, you will pass your test.*

Interviewer: *So it is important to learn everything then?*

Respondent: *Yes and it is really important to learn about spellings.*
           (St. Edward's)

Children as young as seven (in second class) explained how important success in school is for one's working life.

Interviewer: *Is it really important to learn how to read and write?*

Respondent: *Yes. For when you grow up and get a job and all that. You have to know lots of important stuff.*

Interviewer: *That's right.*

Respondent: *Like if we didn't you would say when you are older, 'I should*
                 have done all that work!' (St. Helen's)

Fifth class children in St. Bernadette's agreed that they would like a
greater focus on the real world in their learning, in order to prepare
them for the world outside the school. They explained that textbooks
don't always suffice:

> *I'd like more asking questions about what's going on in the*
> *world. We don't have a science book as we have to share these*
> *two 'Look around the world' books. We're getting a new book*
> *called 'Art link' with world history, geography and science all*
> *in the one book for next year. In the 'Look around' books we*
> *only did them twice this year, and there wasn't a lot of work*
> *in them.* (St. Bernadette's)

Children described their use of projects to learn more about the real
world. They reported enjoying projects, which involved the elements
of learning already discussed (collaborative, active, inquiry-based and
authentic learning). For example, a fifth class child explained that
project work was very rewarding when it involved working with
others and making important choices, *I liked working in a project,*
learning to work together to agree. We did one about the famine. It was
designing it out, what you're going to write down, plan. We did it all
ourselves.

A number of children's projects have already been discussed in this
section. In general, examples of projects reported by children
supported the curriculum area, social environmental and scientific
education (SESE), which includes three subjects: history, geography
and science. Some examples of SESE projects described by children
are provided below:

We made a project with explorers. We learned about Marco Polo and Tom Crean and Ferdinand Magellan, Christopher Columbus. (St. Edward's, fourth class)

We did an orang-utan project and we put it into a scrapbook and we did all about the orang-utan. (LETNS, fourth class)

We did a big project on Volcanoes this year… Molten rock, which has escaped to the Earth's surface, is called lava. Glowing streams of lava pour out of the crater and flow down the sides of the volcano like rivers of fire. (Scoil Naomh Muire)

Rinneamar tionscnamh mór ar bholcáin i mbliana…Laibhe a thugtar ar chlocha leáite a thagann amach ar dhromchla an domhain. Pléascann sruthanna lonracha laibhe amach as an gcráitéar agus sníonn siad mar aibhnte tine le fána síos an bolcán.

Findings here suggest that children's enjoyment of project work could be used to greater effect by teachers, to involve collaborative, active, inquiry-based and authentic learning by children across the Primary School Curriculum subjects.

Interviews with Parents

This part of Section five describes findings from interviews with parents in the six case study schools. Interviews with groups of (4–8) parents were held in the school during the second term of the 2003/2004 school year. Interview guides are provided in Appendix B. Data from parents has been organised according to the following headings:

- Involvement of parents

- Curriculum priorities

INVOLVEMENT OF PARENTS

Parents' responses are organised as follows:

- Types of support parents provide for their children's learning

- Challenges in supporting parents as educators

- Sources of support for parents

- Information required by parents

Types Of Support Parents Provide For Their Children's Learning

Focus group interview with parents
Question: Can you describe some of the opportunities you have had to be involved in your child's learning in school/at home?

Parents in all six schools provided examples of how they were involved in their children's learning in school. Most of the parents in each school were involved in some way through either an activity or

event. The extent of this involvement in terms of frequency and the purpose of the involvement differed across the schools.

Parental involvement in school

Parents in St. Helen's and St. Edward's reported much higher levels of involvement than parents in the other four schools. In the case of the two former schools, parents reported ongoing involvement where they spent time in classrooms on a regular basis working with a number of children. In comparison, parents in St. Bernadette's, Gaelscoil an Ghleanna, Scoil Naomh Muire and LETNS reported more sporadic involvement with them being more inclined to participate in one-off, annual or infrequent events and activities.

A further difference emerged across the six schools regarding the nature of the parents' involvement in their children's learning in school. In the case of the two disadvantaged schools, St. Helen's and St. Edward's, parents reported being involved in supporting children's language development and in particular, their reading. These two schools were proactive in encouraging parental involvement in this area of the curriculum, as noted in the interviews with teachers and principals. A parent in St. Edward's described how in the case of children who had a reading difficulty, *the kids could pick the book they wanted, read it to us [the parents] and if they were having difficulty, we could help them along with the book and read with them*. Similarly, a parent in St. Helen's spoke about being involved in *shared reading* in the classroom, and how the class teacher actively encouraged parents participating in a 'reading and literacy' programme to spend time in the classroom with the children. In the case of both St. Edward's and St. Helen's, parents emphasised how their experiences in the classroom enabled them to provide greater support to their own children both in school and at home. Parents in St. Helen's recounted their efforts to organise parental involvement in mathematics in the

classroom; *we are working on parents coming in to play games at one table and when that game is finished you move on to another table.* Some parents reflected on how this was similar to their involvement in their children's learning in the Early Start programme offered by the school for children in the year prior to their entry to junior infants.

In contrast to the nature of parental involvement in supporting children's learning in the two disadvantaged schools, parents in St. Bernadette's, Gaelscoil an Ghleanna, Scoil Naomh Muire and LETNS referred to events such as parent/teacher meetings, information meetings with the National Parents' Council, book sales and meetings of the Parents' Association. They did report being involved in some activities that saw them providing direct support to children in classrooms. These included 'talks' with children, *if the parent has particular skills in a particular area, they would be invited to come in and maybe talk to the class* (LETNS). Other activities in which parents were actively involved in supporting their children's learning concerned the *achievement of the Green Flag where the Parents' Association organised the fruit tasting day* (St. Bernadette's). Parents in both St. Bernadette's and Scoil Naomh Muire mentioned fundraising.

Unlike the literacy and numerically based activities identified by parents in St. Helen's and St. Edward's, the activities reported by parents in the other four schools did not involve the parents in supporting the ongoing development of children's knowledge and/or skills in curriculum areas. Neither did the activities in these schools involve parents being in regular contact with the class teacher and learning from him/her about new ways of supporting their own children's learning. One parent in LETNS did refer to the benefits for a parent of being able to spend time in the classroom to observe the curriculum in action and to learn from this experience; *you can observe and ask about something in the curriculum with your child or with the teacher, because you have been physically there.* This parent was

reflecting on his/her experiences as a parent of a child in infants. Having a child in a junior class afforded the parent ready access to the class teacher on a daily basis.

In comparing the different types of activities reported by parents in the six schools, two factors began to emerge that influenced how and to what extent parents were involved in their children's learning at school. These two factors related to the school status in terms of having designated disadvantaged status or not, and the age of the children. A parent in St. Helen's drew particular attention to the impact of the child's age on his/her involvement in the classroom; *when they [the children] move on up [the classes], it is not that you as the parent are discouraged or anything, they don't want Mammy in the classroom which is fine.* Diminishing parental involvement in children's learning at school as children progress through the class levels was evident to some extent in the discussions with parents.

Parental involvement in learning at home

Parents in all six schools identified homework or *obair bhaile* as the main activity in which they were involved in their children's learning at home. Involvement largely consisted of parents supervising the completion of the homework, asking spellings and tables, and encouraging and giving children the incentive to concentrate.

I'd spend time with the homework helping him and checking it, and then examining anything he had to learn off by heart, like spellings, names of rivers, that kind of thing. (Scoil Naomh Muire).

Chaithfinn am leis an obair bhaile, ag cabhrú leis, agus á seiceáil, agus scrúdóinn aon rud a bhí le cur de ghlan mheabhair aige, mar shampla, litriú, ainmneach aibhneacha, a leithéid sin.

Parents in St Bernadette's and LETNS, elaborated to a greater extent on their involvement in their children's learning at home. As well as

helping children with tables and spellings, a parent in LETNS referred to helping the older children with project-based work; *it is very much like taking them [the children] to get the information and learning how to access it.* Another parent in LETNS, commenting on supporting a younger child's learning at home, commended the work of the class teacher and the special needs teacher in liaising with him/her in order to support the child in learning to read. In expanding on this parent/teacher partnership, another parent in the school praised the efforts of teachers to share information about his/her 'special needs' child's learning, enabling the parent to build on this learning at home.

Parents in St. Bernadette's and LETNS identified concerns about the amount and type of homework their children had. Parents in both schools referred to the length of time children had to spend completing homework. This was a more pressing concern for parents in St. Bernadette's. Some of these parents spoke of their efforts to reduce their involvement in the children's homework, especially in the case of the older children. Parents in both schools also commented on how little homework activities had changed since they were in school themselves.

> *I sometimes wonder at whether there has been a huge change*
> *since the new curriculum, in the type of tasks that people have to*
> *do for homework. Sometimes it seems to me that it is still*
> *repetitive and rote and not necessarily involved in thinking.*
> (LETNS)

While homework was the main activity identified, parents in St. Bernadette's referred to out-of-school classes and clubs; *I bring them to art classes or to football training or things like that.* Another parent in the school described helping his/her son to use *learning games on the computer … one of them (CD-ROMs) focuses on finding out where principal cities are using a multiple choice test.* The parent commented that the child learned *much better that way, using different methods of teaching.* A third parent supported his/her children's learning by *reading to them before they*

go to bed. This support offered through reading was also reported by a parent in Scoil Naomh Muire, but in the context of the children being young.

Interestingly, parents in the two disadvantaged schools expressed no concerns regarding homework or their involvement in it. A parent in St. Helen's explained why homework is not a particular issue for parents, *I asked her [the teacher] why he [the son] didn't get a lot of homework, but she told me they do most of it in school. The parents are not pressurised then at home.* Another parent in St. Helen's did outline his/ her experiences in extending his/her child's learning at home and broadening his/her interests. This parent spoke about, *having more time for them [the children] more concentrated time … they learn better at home because they have one to one attention.* He/she explained how furthering the child's learning at home by building on school experiences had resulted in the child becoming bored in class and no longer wanting to go to school. The parent expressed mixed feelings about whether or not he/she should have become so involved in the child's learning at home; *I feel as though I did too much at home. But he wanted to learn, it is not as though I forced him, he had an interest … but now he is bored in school because of it.* Other parents in St. Helen's noted how their children learned more in school than they would at home.

Challenges In Supporting Parents As Educators

> **Focus group interview with parents**
> **Question: Are there particular areas of the curriculum you find challenging in supporting your child's learning? Why?**

Parents in all schools, except Gaelscoil an Ghleanna, identified challenges they faced in supporting their children's learning in mathematics and/or Irish. In the case of mathematics, changes in the approaches and methodologies from when parents themselves

attended school presented significant challenge for parents. Limited parental awareness of and understanding of the new approaches and methodologies was the main source of the challenge. As one parent noted, *braithim gur mór na hathruithe a deineadh ar na slite ina dtugann siad faoi rudaí, mar shampla, an dealú agus an iolrú. (I find a lot has changed with the way they're doing things like subtraction and multiplication)* (Scoil Naomh Muire). Another parent, in demonstrating the difficulties this can potentially create for parents and their children, commented, *if you haven't a clue about this new method, what ends up happening is that you get very frustrated, it ends up in a row and there are tears and screaming* (St. Edward's).

Pronunciation of words and phrases was the main difficulty highlighted by parents with regard to supporting children's learning in Irish. Some parents offered examples of words that they felt were now pronounced in a completely different way to when they attended school, for example, *teach (house)* and *gluaisteán (car)*. The parents expressed frustration at the apparent lack of support for them in this area of the curriculum. *I think there is no support for parents in Irish, absolutely none at all.* (LETNS). This parent spoke of the even greater challenge posed by the Irish curriculum for parents whose first language was neither Irish nor English. *They [the parents] are looking at words they have never seen, and they have no idea what they mean or how to pronounce them. There should be some training or guidance for parents and funding for it too.* A parent in Scoil Naomh Muire also referred to the necessity for support for parents in Irish. *I'd have difficulty with Irish. I'm not from around and so, we'd be depending on the school almost entirely [for support in helping children to learn Irish].* In contrast, a parent in Gaelscoil an Ghleanna noted how the school was actively supporting parents in helping their children to learn Irish. *Táim ag tógáil ranganna i nGaeilge istoíche, agus ní bhíonn deacrachtaí agam leis an nGaeilge dá bharr. Eagraíonn siad ranganna anseo do na tuismitheoirí. (I'm taking classes in Irish at night so I don't have any difficulty with the Irish. They organise classes here for the parents.)*

Another challenge pertaining to a specific aspect of the curriculum was identified by parents in Gaelscoil an Ghleanna. They questioned the curriculum's new approach to supporting children to learn to read. Of particular concern for the parents was the focus the curriculum placed on 'picture books' as reading material. The parents queried the benefits of discussing pictures as a basis for learning how to read, and wondered why the early books children used in school shouldn't have words and sentences.

Parents in St. Helen's highlighted a general challenge that they can often experience in supporting their children's learning across the curriculum. This challenge related to educational disadvantage, and how parents who have experienced educational disadvantage in their own school years, were often presented with barriers to supporting their own children's learning.

> *I know people who wouldn't have had an education themselves*
> *and who would be illiterate and not have great literacy skills,*
> *they find it difficult to help their children. Then the children*
> *are suffering because they [the parents] don't want to admit to*
> *their kids that they can't read or write or help them.*
> (St. Helen's)

Sources Of Support For Parents

Focus group interview with parents
Question: If you have questions about parts of the curriculum, who would you usually ask?

Parents in all six schools identified the class teacher as the first and main point of contact when they required information or assistance to support them in helping their children to learn. Some parents made specific reference to how approachable and helpful the teachers were in providing them with the necessary information and

guidance. *The doors are always open and teachers are very approachable* (St. Helen's).

Parents in three schools, St. Bernadette's, Gaelscoil an Ghleanna and Scoil Naomh Mhuire, identified the school principal as an important reference point in accessing information about how they could support their children's learning. Parents themselves were considered to be an important source of information, advice and guidance by fellow parents in St. Edward's, while parents in Gaelscoil an Ghleanna considered it beneficial and important to ask their own children about parts of the curriculum with a view to better enabling them to support their children's learning.

Information Required By Parents

Focus group interview with parents
Question: As a parent/guardian, are there particular types of information you would like about your child's learning in school?
Question: In what ways do you think this information might be made available to parents/guardians?

Parents in all schools, except Scoil Naomh Muire, commented on how helpful it would be to have an overview of the curriculum for each class. They suggested that this overview should outline the general learning that should be covered in the different subjects in a given year, and could include the approaches and methodologies that would be used by the teachers in supporting the children to learn in the various subjects. *Education is everything in this day and age and I know I want to help mine [my children] as much as I can. But I need to know how to do this. I need to know what the curriculum is about, the methods etc.* (St. Helen's). Parents whose children attended a senior school expressed similar sentiments. *I'd like a leaflet or booklet as each*

child goes into a new class. This would explain what to expect and how to help learning at home. (St. Bernadette's).

Parents' requests for information relating to approaches and methodologies were related to the challenges they had mentioned experiencing in subjects such as mathematics. In seeking more information on the curriculum for each class, parents in Gaelscoil an Ghleanna noted their particular wish to learn about, *an saghas ruda ar cheart a bheith ar siúl ag mo pháiste i Rang IV agus mar sin de, a leithéid sin (what should my child be doing in Irish in fourth class, and so on, that type of thing).* Reflecting on their experiences in receiving information from class teachers about the curriculum for each class, parents in LETNS spoke of how useful the information was to them in supporting their children's learning throughout the year. They suggested that notes from the teachers would add to the usefulness of this particular information-sharing event. *The day that they [the teachers] explain the curriculum is a 40-minute meeting, may be to have some notes would be good. You might forget bits, etc.* These parents saw the notes being particularly helpful to parents whose first language was not English.

Parents in two schools, St. Bernadette's and Gaelscoil an Ghleanna, requested access to more assessment information about their children's learning. They considered this particularly important to enable them to play their role in supporting their children in curriculum areas presenting difficulty to their children. *Ba mhaith liom a fhios a bheith agam faoin rud a fhaigheann sé deacair, cé na háiteanna ar ceart súil a choimeád orthu. Ba mhaith liom chomh maith treoir a fháil ón scoil ar conas cabhrú leis na fadhbanna atá aige i dtreo is gur féidir liom rud éigin a dhéanamh faoi (I would like to know … what he [my child] finds difficult, what are the areas to watch for. I would also like to get tips from the school on how to help with the problems or difficulties he has so that I can do something about it.)* (Gaelscoil an Ghleanna).

Parents in St. Bernadette's emphasised the importance of receiving this assessment information on a regular basis as opposed to once or twice a year. *A Report card comes home at end of the year but it's too late for me to do anything about it.* They suggested that the results of tests such as the Micra-T test should be shared with parents, and that similar tests should be carried out more frequently by schools and the results shared with parents so that parents would have a running knowledge of how their children were progressing in their learning. *I'd like written feedback on progress, like a report card but more often during the year, maybe quarterly – just to know how things are going and how he's getting on in school.*

Parents in St. Bernadette's requested information concerning two other areas. One parent emphasised the importance of having access to information on learning difficulties and how parents could support their children to overcome/cope with these difficulties. Another parent from the school wanted guidance on completing homework with particular emphasis on how much time should be allocated to homework. This request links in with the concerns shared by parents in this school regarding the length of time their children spent on homework.

Formats for information dissemination

Parents in all six schools suggested using printed materials and meetings as formats for sharing more information with parents about their children's learning. They considered a leaflet or booklet to be an appropriate way of providing parents with an outline of the curriculum for a particular class. A parent in St. Edward's suggested that the use of audiocassettes for this purpose should be explored. This could perhaps alleviate some of the challenges experienced by parents who have low literacy levels, as noted by parents in St. Helen's, and those parents for whom neither Irish nor English is their first language, as noted by parents in LETNS.

In discussing the use of parent–teacher meetings as a format for sharing information, parents in some schools referred to their own positive experiences of these meetings, while parents in other schools made suggestions about how these meetings could be used to better serve their needs as parents. Parents in St. Edward's, St. Helen's and LETNS spoke about how useful the parent–teacher meetings were. They also explained how they don't have to wait until an official meeting time to talk to the teacher, *parents also simply approach the teacher if they want to ask something etc.* (St. Helen's). Parents in LETNS referred to their use of notes/letters to access information. *You can always write a letter or make an appointment [to see the teacher].*

Parents in St. Bernadette's discussed their need for more meetings with teachers during the school year. In reflecting on their experiences in the junior school, they suggested that more regular meetings would provide parents with better opportunities to obtain information about their children. *We have one [meeting] in November but one is not enough. If we're having a meeting in November, then we need one in March, let's say, as well. In the infant school, they do it in February.* Another parent in the school commented, *I'd like monthly updates – regular information. I could prepare myself in advance for supporting him/her in a particular area [of learning].* Parents in that school suggested that ICT might be considered as a more convenient way for teachers and parents to communicate on a more regular basis.

Parents in St. Helen's drew attention to the important role of parents sharing information with each other as a means of disseminating information to a wider audience in the school. *We do talk and we do meet each other in the corridors, when we drop kids to school or in the playground in the morning or whatever.*

In considering parental involvement at a national level in supporting children's learning, parents in LETNS inquired whether or not parents were and are consulted prior to changes being made to the

curriculum. They were pleased to learn that parents were represented through the National Parents' Council - Primary, and that they could take any concerns/ideas they had to the Council through their Parents' Association.

CURRICULUM PRIORITIES

> **Focus group interview with parents**
> **Question:** What do you think are the most important learning experiences for children in school?
> **Question:** If you could make one change to what your child learns in school, what would that be? Why?

A balanced education

Parents in the six schools commented on the importance of a balanced education through a *broad variety of subjects* to support children's development and learning in the academic areas as well as in the social, personal, emotional, physical and creative domains. The tension between academic and more social and creative learning appeared to be more acute for parents in St. Bernadette's and LETNS than for parents in the other four schools. A parent in St. Bernadette's highlighted a concern that *children have become very academic and they've forgotten some of the other things – that balance doesn't always seem to be there.*

Comparing his/her children's learning experiences in the junior and senior schools, another parent in St. Bernadette's noted how children's learning had become more academic with the transition to the senior school; *I'm delighted with the school, just little things I wonder if they go on here, like in the junior school.* Parents exemplified how the imbalance they perceived in their children's learning experiences in school could be remedied. There was broad agreement by the parents

in St. Bernadette's, St. Edward's, St. Helen's and LETNS that children's learning experiences should include a greater emphasis on areas such as sport, music, art, environmental awareness and ICT.

> *I would love to see more music, more sport, more activities, more use of the school garden, etc. What we would maybe associate as more softer stuff, what would be considered maybe as alternatives to traditional education in the Irish system, the non-academic as such … Not every child is going to respond to academic as opposed to the opposite. There doesn't seem to be any clear space for them. (LETNS)*

Parents in Scoil Naomh Muire and Gaelscoil an Ghleanna expressed delight that their children were receiving a balanced education. *Déanann siad (na páistí) réimse leathan rudaí ar scoil, ní hamháin na 3R. Stair, tíreolas, ealaín, corpoideachas agus ceol (They [the children] do a wide range of things at school, not just the three Rs. Also history, geography, art. PE and music.)* (Gaelscoil an Ghleanna).

They [the children] get great opportunities to do a lot of different things, music, art and craft, as well as the reading and writing. The teachers put a lot of effort in, and it's not easy when there are only two [teachers]. There's an emphasis on the breadth of the curriculum, all those interesting things like science and art and craft.
(Scoil Naomh Muire)

Faigheann siad [na páistí] deiseanna iontacha chun a lán nithe éagsúla a dhéanamh, ceol, ealaín agus ceardaíocht, maraon leis an léamh agus an scríobh. Caitheann na múinteoirí dua mór leis agus níl sé sin éasca nuair nach bhfuil ann ach an bheirt acu. Tá béim ar leithne an churaclaim, na nithe suimiúla sin mar eolaíocht agus ealaín agus ceardaíocht.

Parents in the two schools with designated disadvantaged status referred more frequently to the importance of their children having enjoyable learning experiences in school, than did parents in the other schools. A parent in St. Edward's wanted his/her children, *to*

come in [to school in] the mornings, without such a thing as not going in today or anything like that. Parents in both schools highlighted how the Primary School Curriculum, *is suiting children more than it ever did* (St. Helen's), and is helping to foster a more positive attitude in children towards school. One parent noted how *children want to go to school now. There is never a day that they want to stay at home* (St. Helen's).

Developing the discussion of children enjoying their learning experiences at school, parents in Gaelscoil an Ghleanna and Scoil Naomh Muire commented on the importance of the curriculum suiting each child so that each child would be enabled to progress his/her learning, and experience success in learning. *Tá sé tábhachtach gur féidir páistí dul chun cinn ar scoil (It's important that all children can progress at school). (Scoil Naomh Muire). Tá sé tábhachtach go bhfuil an teagasc de réir aois, leibhéal tuisceana, suim agus cúlra cultúrtha gach páiste (It's important that … the teaching is appropriate to the age, level of understanding, interest and cultural background of each child.)* (Gaelscoil an Ghleanna).

Gaeilge

A concern expressed by parents in St. Bernadette's and LETNS related to their children's experiences in learning Gaeilge. One parent noted, *I don't see that he [the child] enjoys the language for itself at all … the language is simply a requirement to get him into the next school* (St. Bernadette's). The parents recommended the use of strategies to motivate children more in learning the language. One parent suggested using more oral Irish, *a lot less [emphasis] on reading and more emphasis on speaking the language before learning how to read and write it* (LETNS). The parents in both schools questioned why the curriculum should afford so much attention and time to Gaeilge as opposed to modern languages.

> *There is no emphasis even in a playful way on taking a foreign language such as French, German or Spanish on board either. I think it is a terrible, terrible shame … It is an awful waste of their [the children's] best learning years.* (LETNS).

> *We all have an issue with the Irish language. Will we come to the stage where it is an option along with other languages? Will it ever come to the stage when French or German or languages like that would be taught in the primary school?* (St. Bernadette's)

In contrast, parents in both Scoil Naomh Muire and Gaelscoil an Ghleanna emphasised the importance of their children learning Irish in primary school. A parent in Scoil Naomh Muire wanted his/her children to acquire a good standard of Irish. *Tá na dúthaí an-saibhir ó thaobh oidhreachta agus traidisiúin, agus tá súil agam go mbeadh eolas ag na pásití air agus go mbraithfidís go mbaineann siad leis (The area [Irish] is very rich in heritage and tradition, and I hope the children would know about it and feel that they belonged to it).* (Scoil Naomh Muire)

Homework

Homework was another area of mutual concern for parents in St. Bernadette's and LETNS. Parents in both schools referred to the length of time necessary to complete homework. While they emphasised that their children were generally coping with respect to the time factor, the parents themselves considered the time necessary to complete the work to be too long. The transition from the junior school to the senior school again emerged as a challenge when a parent noted, *I find the transition from the infants to this school [senior school] quite different – it's noticeable.*

The parents in St. Bernadette's shared concerns about the learning styles being promoted through the homework. They considered the children to be engaged in *reeling off homework, reeling off spellings.* One

parent commented on how homework should be experienced by children, *a child's imagination needs to be stimulated, to be encouraged – but everyday for him [my son] it's all about spellings and tables and that holds no interest for him. I*n agreeing with these comments, another parent suggested alternative formats for homework; *I think we should look at using IT more for these things [spellings and tables]…these kids are pretty much computer literate.* Parents in LETNS expressed an interest in learning about strategies to enable children to complete homework more independently. Interestingly, parents in the two disadvantaged schools, St. Helen's and St. Edward's, and the two Irish medium schools, Gaelscoil an Ghleanna and Scoil Naomh Muire, did not raise concerns about homework.

Interviews with Principals

This part of Section five describes findings from interviews with principals in the six case study schools. Individual interviews with principals were held in the school during the first and third terms of the 2003/2004 school year. Interview guides are provided in Appendix B. Data from principals have been organised according to the following headings:

Principal's role in leading curriculum change

- Assessment

- Impact on children's learning

- Involvement of parents and Boards of Management

- Curriculum challenges

- Curriculum successes

- Curriculum priorities

Principal's Role in Leading Curriculum Change

> **Principal Interview, Question**
> What is your understanding of your role in leading curriculum implementation in your school?

Principals in the six schools reported that they had a critical role in enabling their schools to engage with curriculum change. Types of responsibilities which principals reported for this work included directing, facilitating, supporting and collaborating. The principal of LETNS explained, *I would be a director, collaborating with the staff and leading that collaboration forward.* In the words of the principal of St Helen's, *I would see myself as a facilitator of curriculum implementation, developing a positive attitude towards it.* In all schools, principals viewed their role as one of supporting class teachers. One principal explained how she fulfilled this function:

> *I see my role in leading and supporting the teachers in curriculum implementation. I assist teachers in whatever way I can. In the case of young teachers, I go in and demonstrate classes. The revised curriculum puts huge emphasis on classroom management, in order to be able to use different methodologies, paired work, group discussion. You have to have wonderful classroom management skills.* (Principal, St. Edwards)

Empowerment of teachers in enabling change was also important for the principal of St. Bernadette's who explained that his role was, *to facilitate, to allow other people to lead, to encourage, to be aware of what the curriculum is trying to do and to do it in the most user-friendly way possible.*

When it came to the practicalities of implementing curriculum change, all of the principals noted the necessity of adopting a whole school approach involving all staff.

> *Staff collaboration is very important, if teachers are involved in*
> *planning and they see a role for it, if they see the child at the*
> *centre and that this is educating the child for the future, they*
> *are more likely to implement the decisions that are taken*
> (Principal, St. Edwards)

Staff collaboration was reported as one key to developing an effective whole school plan. The principal of St. Bernadette's school explained that the bottom line for curriculum implementation was *the atmosphere of collaboration within the school. The principal of LETNS noted that, the whole school approach, the holistic approach, the collaboration are definitely strengths* (in implementing the curriculum). External support for the process of curriculum implementation was also identified as important by four principals, e.g. the principal of St Helen's noted, *The cuiditheoirí are great… we still need people coming in when something new is being introduced to us but once they have come in we have quite a lot of people here who can act as cuiditheoirí.*

ASSESSMENT

> **Principal Interview, Questions**
> **What tools of assessment are used (e.g. problem-solving tasks, standardised tests, portfolios, work samples, discussion, play scenarios)?**
> **Do you have a school policy on assessment?**
> **What arrangements are in place for reporting to parents/ guardians?**

All six principals reported that teachers in their schools used assessment on a daily basis *to inform teaching and learning,* and less frequently *to show what children have learned.* Of these two purposes of assessment: assessment *of* learning and assessment *for* learning, all principals stressed the importance of the latter. To enable the child to

gain the most from his/her learning on a daily basis, principals explained that teachers used *different informal strategies*. Teacher observation was reported as the type of assessment most frequently used in the six principals' schools.

We're assessing the children every minute of the day. Teacher observation is given in the curriculum and I think it's the most important source of assessment information. The teacher has a great insight into how the child is doing. The teacher continually monitors the child's reactions, successes, failures, difficulties.

(Gaelscoil Naomh Muire)

Táimid ag déanamh measúnú ar na páistí gach neomat den lá. Tá cuntas ar bhreathnú an mhúinteora agus is dóigh liom gurb é an foinse is mó tábhacht ar eolas measúnaithe é. Tá léargas iontach ag an an múinteoir ar conas mar atá ag an bpáiste. Déanann an múinteoir monatóireacht go leanúnach ar iompar an pháiste, ar a mbaineann sé/sí amach, ar a dteipeann air/ uirthi, agus ar na deacrachtaí

One principal reported that teachers in her school also used samples of children's work or portfolios to assess children's learning. This principal explained that each year teachers compiled samples of students' work in each subject as one means of monitoring children's progress and achievement over time:

> *Every teacher has a filing cabinet in his or her room and there are samples of work kept three times a year in each of the subject areas on the children to see if there is progression in their work. At the end of the year some samples are kept. The teacher selects samples that show progression or the chosen area that needs improvements. That moves on to the next teacher so that at the end of eight years there is a sample running from infants to sixth class.* (St. Edward's)

Principals reported teachers' use of informal written and oral tests in English and mathematics on a regular basis, e.g., spelling tests, maths tests. Additionally, principals noted that teachers assigned teacher-

designed tests to children in English, Maths and other subjects including history, geography and science at the end of the school year.

In addition to teacher observation and teacher designed tests and tasks, principals reported using diagnostic tests to support learning for children with special educational needs. One principal explained the focus on the additional learning needs of some children in her school's assessment policy:

> *We have assessment to identify whether children required additional assistance. We also do a lot of observation. Some of the learning support or special needs teachers would come into the classroom and with myself would do up the observations. Other skilled people are also involved in observation and then we would look at whether the child maybe needed assessment of another nature, more in-depth assessment, for example the MIST test.* (LETNS)

Principals in all six schools reported using standardised tests to assess, record and report children's achievement in English and Mathematics. Principals reported using standardised tests to *get an overall view of children's strengths and weaknesses and to identify whether teaching approaches had been successful*. Five principals reported using standardised tests in English and two principals reported using standardised tests in mathematics.

> *We do the Micra T and Sigma tests every year and we use this information. It is a useful tool in approximately seeing where children are at, and sharing where we're at and where we need to pick up. So we use it from that point of view.* (St. Bernadette's)

One principal queried the use of standardised tests and other assessment tools for different subjects.

> *We have a policy on assessment but it's mostly English and Maths that we have the standardised attainment tests and whatever. [Assessment in] Irish is more teacher-based in the classroom. It wouldn't be a formal assessment. English and Mathematics are very specific. Assessment and visual arts - I would have to say we would all forget about it. I mean how do you assess visual arts? You get them to look and respond but do we even want to assess visual arts? I think our feeling was, 'No'.* (St. Helen's)

Principals in the two Irish-medium schools reiterated the important function of standardised tests but noted the particular challenges faced by schools where Irish is the medium of instruction. According to the principal of Scoil Naomh Muire:

Assessment is a big problem for us. There are no standardised tests available through Irish for mathematics. I use the tests in English, but we have to spend time going through the terms they might meet beforehand.	*Fadhb mhór dúinn is ea an measúnú. Níl aon trialacha caighdeánaithe trí Ghaeilge don mhatamaitic. Úsáidim na trialacha trí Bhéarla, ach ní mór dúinn am a chaitheamh leis na téarmaí Béarla a mhíniú a chasfar orthu roimh ré.*

(Scoil Naomh Muire)

Principals in four schools reported developing a school policy for assessment, though all were in the initial stages. Two principals noted that appropriate measures to identify and support children with special educational needs, should be described in such a policy. All of the schools had policies in place to provide supports for children with special educational needs, including diagnostic assessment.

When asked what arrangements are in place for reporting to parents all six principals reported using end-of-year reports in their schools. Four principals reported additional methods of communicating children's achievement with parents including scheduled parent-teacher meetings, informal parent-teacher meetings and parents' workshops and evening sessions in school. Principals noted the important role of the home-school liaison coordinator in facilitating more frequent communication with parents.

The principal in LETNS stressed the importance of keeping lines of communication open with parents e.g., *we keep communicating regularly with the parents.* The principal of St Bernadette's noted the value of communicating with other schools regarding the progress of incoming students, *it's very important to communicate with our feeder schools.*

IMPACT ON CHILDREN'S LEARNING

Individual interview with principals, Question
In your experience as a principal, how has the Primary School Curriculum impacted on the quality of children's educational experiences in your school?

All six principals spoke positively about the impact of the curriculum on children and their learning. The principal of St Helen's explained, *I think it [Primary School Curriculum] is all positive. Children are happier. This emphasis on rote learning and regurgitating everything is gone and the fear of failure is gone.* Reference to the positive impact that the curriculum has on the child's affective domain, was made by the principal of LETNS who stated, *I think it has been hugely positive. The children have hands-on (learning experiences) now. I think the integration of subjects is wonderful and I think children are happier.* The meaningful application of the curriculum to the child's life was highlighted in

the following quotation from another principal.

> *It is a broader experience which emphasises skills as well as knowledge. Value is placed on multiple intelligences and children who would have probably tried to hide in the background in the past are now able to tell how something is done. They have experienced projects, are involved in them and have the confidence to talk about them. Their experience is broader and their confidence is greater.*
> (St. Edward's, Principal)

Thus, the practice of oral language as underpinning learning particularly in the context of project-based learning is important in the experience of this principal. The new strategies for teaching and learning are also beneficial for engendering the child's engagement with the curriculum.

INVOLVEMENT OF PARENTS

Individual interview with principals

Question: What arrangements are in place for reporting to parents/guardians?

Question: How does your school inform parents/guardians and the Board of Management about the six subjects in-serviced to date? (e.g. presentations, newsletters, exhibitions) Which of these have you found to be effective? Why?

Question: What opportunities do you have for involving parents/guardians and the local community in teaching and learning in the classroom (e.g. shared reading, project work, artist in residence)?

According to the principals involved in the case study interviews, schools had different levels of involvement of parents in the teaching

and learning process. One school regarded parental engagement with the child's learning as an integral feature of the school culture. Parents were involved both inside and outside of the school in a variety of ways. The principal of LETNS identified the ways in which parental involvement was interwoven with school practices:

> *Regularly parents would help with swimming, any kind of art and art and crafts. They are involved in the 'write a book' project, helping to put books together, helping the children to draft and redraft their work. We would also have parents in the SPHE. We did collaboration with parents on a school safety and they do the outside school safety.* (LETNS, Principal)

There are varying degrees to which schools reported success with involving parents. For example, the principal of St Helens stated that their school, [has] *an open door policy and some teachers encourage it more than others but parents do come in and sometimes they have a look at the art activities in the classroom*. The principal in St Edward's indicated that despite having open nights and facilitating meetings with parents, *we do find it difficult to get parents involved*. This school has disadvantaged status, which may be relevant when discussing the challenges faced by the school in involving parents. Reaching out to all parents was a challenge for St Bernadette's also. The principal lauded the support for school activities which was provided by the Parents' Association but he also noted that it may not have been representative of all of those parents who were less inclined to become involved in their children's education.

> *The Parents Association is often populated by conscientious parents, as opposed to those parents that you would want to communicate more with. So, even though they do represent the parents and they are very good, they don't always represent all of the children in the school, I believe. The total group of parents often includes those who shy away from these activities.*
> (St. Bernadette's, Principal)

Perhaps schools would benefit from having opportunities to share best practice in relation to the involvement of parents. The home/school link is a key component of the child's learning and it is clear that some of the schools that participated in the survey would welcome ideas and support for involving parents more closely in school activities.

None of the schools interviewed regarded the Board of Management as a key partner in implementing the curriculum. The schools stated that the Boards of Management were generally concerned with the financial and structural aspects of running the school and were less involved with the practicalities of orienting curriculum change within the schools. There is a perception in some of the schools that providing information to members of schools' Boards of Management is sufficient. This viewpoint is best expressed by the principal of St Edward's School who stated that, *our Board of Management just like to be informed at the Board of Management meeting and they like to attend if something is organised. They feel that the curriculum is not their role.* In the case of St Helen's, the teaching staff have elected not to involve the Board of Management to any great extent in the curriculum implementation process because, in the words of the principal, *we tend to leave it [out of BM meetings] as we know what we're doing.* The principals who were interviewed seemed unsure of how or even why their Boards of Management should be more involved with curriculum implementation.

CHALLENGES

> **Individual interview with principals, Question**
> **What, in your experience, are the three most significant challenges you face as a school, in implementing the Primary School Curriculum?**

Five of the six principals interviewed reported lack of time for implementing the curriculum as their greatest challenge. The principal of St Bernadette's believed that, *there wouldn't be enough hours in 24 to do everything that every tutor [at in-service] quite correctly points out that you should be doing.* Another principal expressed concerns regarding the challenge of sufficient time to facilitate communication, collaboration and planning, among teachers. The principal of St Edward's school noted that, *one of the challenges and maybe the challenge in every school is the challenge that the lack of time presents in trying to collaborate with the teachers and develop the same methodology and approaches throughout the school.* The principal of LETNS added time for assessment to the challenges posed by lack of time, *time to consolidate, definitely, we find that a pressure. Time to write, that has definitely come up for us. Time to evaluate and assess, which is kind of a consolidation as well.*

Five principals also identified lack of/insufficient resources as a challenge to curriculum implementation in their schools. Principals in schools where Irish was the medium of instruction identified this as a particular challenge. Other challenges noted by principals included the need for *continued professional development of teachers* (two principals) and the challenge of parental involvement e.g., *the second challenge (after time) is to try to get our parents involved in curriculum* (two principals).

CURRICULUM SUCCESSES

In addition to the successes in English reported by principals in Section 2, principals reported success with language in general. The principal of the Gaelscoil explained that a broader range of language choices is offered for children in the school, *Their focus on the Irish Language has provided us with a wonderful opportunity to expose our children to French and German at an early age.* In particular, principals reported successes with the Gaeilge Curriculum.

Four of the six principals interviewed reported that the communicative nature of the Irish curriculum had impacted positively on teaching and learning Irish in their schools. When asked what methods are used for teaching Irish the principal in St. Helen's echoed the other principal's comments by explaining, *it's all communicative now, it's all talking.* This reflects the philosophy underpinning the Gaeilge Curriculum which emphasises teaching the language in a meaningful way, *is ar úsáid na Gaeilge mar ghnáth-theanga bheo chumarsáide a leagtar béim sa churaclam seo (The emphasis here is on using Irish as an ordinary language of communication)* (p.2). The principal of St. Edward's explained teachers' use of active learning methods to help children develop communicative competence in Irish:

> *All of the teachers are using activities in their Irish to create*
> *that real communication that is vital, cards or whatever it is, a*
> *game, children are working in pairs or groups and there is*
> *correction done after they go back into whole class. That*
> *strategy is being used throughout the whole school.*
> (St. Edward's)

(As noted in the subsection on children, St. Edward's was the only English-medium school where children reported liking Irish.) While the communicative approach to teaching and learning Irish using

child-centred methods may have been a change in direction for some schools, the principal of Scoil Naomh Muire (Gaeltacht School), reported that the Gaeilge curriculum strengthened a pre-existing commitment to communicative language learning. The quote below exemplifies how the experience of schools in the Gaeltacht may be different from that of English-medium schools:

We had been going towards a communicative approach before the curriculum ever came out using drama, role-play, and real life situations in the classroom. Of course the children are using Irish all day, so I suppose we have always been using communicative approach.
(Scoil Naomh Muire)

Bhíomar tugtha don cur chuige cumarsáide roimh theacht amach don churaclam nua, ag úsáid drámaíochta, ról-imeartha, agus eachtraí laethúla sa scoil. Ar ndóigh, tá na páistí ag úsáid Gaeilge an lá ar fad, agus is dócha, dá bharr, go raibh an cur chuige cumarsáide i gcónaí riamh in úsáid againn.

Only the principal of St Bernadette's, while concurring with school successes in Irish, also reported difficulties, noting that, *Irish can be a struggle. We try to have it as natural as we can*. The data suggests that teaching approaches and methods are key to implementing the Irish curriculum for some schools. Further data on the Irish Curriculum will be gathered from schools in the next phase of the NCCA's curriculum review.

PRIORITIES

Individual interview with principals:
Question: Where do you see yourself one year from now in your school's implementation of the Primary School Curriculum? What is your greatest priority?

In planning for their continued implementation of the curriculum, principals in three of the six schools reported their intention to cater for children with linguistic needs within their schools. The principal of St Helen's explained that almost 25% of the school population include children from diverse cultural backgrounds, the majority of whom speak English as an additional language. To meet the needs of these children the principal explained that, *there would be a great focus on language development in every classroom. There would be teachers helping them on an individual basis.* One principal identified strategies her staff will continue to use, and to prioritise, to ensure equality was achieved for all children in the school.

> *We would connect up there with a number of parents and children on the home language. We would try to get posters that would have different languages. We have had welcoming signs on the doors of classrooms and areas around the school in the different languages so we would look to be inclusive and the whole equality issue, equality of access and we strive to be inclusive for those children.* (LETNS)

The principal of St Bernadette's also noted the diversity of cultural backgrounds in his school:

> *[We have children] from Russia, Moldova, Kosovo, Brazil, Nigeria, and all over. So we are very conscious of them and of including them. We are conscious of being very sensitive to their background while at the same time getting them to be sensitive to where we are at the moment.* (St. Bernadette's)

He described teachers' efforts to become more sensitive to the cultural needs of the children in order to best support their learning with the curriculum.

Another priority concern for two principals focused on *making greater efforts towards prevention of learning difficulties.* In achieving this goal, the principal in St. Edward's hoped *to focus on senior infants particularly and junior infants.* The principal in the second school with disadvantaged status in this study noted that, *if literacy interventions are taken early in the child's education the benefits will be reaped later as the child is enabled to engage positively with the curriculum.* An additional priority mentioned by principals focused on tackling poor school attendance. The principal of St. Bernadette's noted the challenges associated with accessing the services of a School Attendance Officer (Education Welfare Officer) and indicated that at the time of the interview, the county in which the school was based did not have such an officer.

Interviews with Teachers

This part of Section five describes findings from interviews with teachers in the six case study schools. Individual interviews with teachers were held in the school during the first and third terms of the 2003/2004 school year. Interview guides are provided in Appendix B. Data from teachers have been organised according to the following headings:

- Teaching approaches and methods

- Assessment

TEACHING APPROACHES AND METHODS

Teachers' responses are organised as follows:

- Higher order thinking skills

- Project-based learning, cross curricular learning and transfer of learning

- Collaborative learning

- Textbooks

Individual teacher interview

The Primary School Curriculum: Introduction (p.16) identifies higher order thinking skills as those of *summarising, analysing, making inferences and deductions, and interpreting figurative language and imagery.*

Question: Where do you find opportunities to foster these skills in children in your class/es?

While some teachers were unsure what higher order thinking skills are, the majority of teachers in all six case study schools described ways in which they promoted the development of children's higher order thinking skills. Teachers in all six schools noted the vital role of oral language in developing children's higher order thinking skills, e.g., through the use of questioning, *why did it happen? What if…? What would have happened?*

A majority of respondents identified the English Curriculum as an appropriate medium for developing children's higher order thinking skills.

> *A lot of it comes through oral work in the different subjects and mostly oral work in, for example, English. A lot of stories the children will do in their novels. Stories in newspapers provide a lot of opportunity for going beyond the text and finding out children's opinions and getting them to stretch their thinking etc.* (St. Edward's, Sinéad, sixth class)

While some teachers noted that in subjects other than English, it was *hard to identify* how these skills might be developed, others reported encouraging children, *to make inferences* in maths and science. Teachers noted that in the SPHE and the ethical programme (in use in Educate Together Schools), *there would be a lot of discussion on topics where they [children] would have to give opinions and maybe say why things may have happened.*

Teachers made a number of suggestions on how best to support the development of children's higher order thinking skills. Some teachers noted that the skills of analysing, summarising and making inferences had to be learned by the children first, at the start of the year and then applied across the curriculum. Others reported enabling children to understand the nature of problems, e.g. *the most important thing is to teach children how to know what the problem is, and how to work*

with the information that's necessary, to sift out the key information from all the facts that are presented to them. Teachers noted the benefits of using real-world problems or scenarios, with one teacher observing

> *You have to give them examples or ideas or whatever. After a*
> *while some of the weaker children were coming out with things*
> *on how you could approach such a problem and make*
> *deductions. Some of them would actually surprise you.*
> (St Helen's)

In general, teachers reported spending little time planning to develop children's higher order thinking skills across the curriculum, e.g. *you try your best in the different areas, but I don't know if enough is being done, and maybe we need guidelines.*

Project Based Learning, Cross-Curricular Learning and Transfer of Learning

Individual teacher interview:
Question: Preliminary data from our scientific survey of primary school teachers during the year of Consolidation and Review indicate that some teachers find it difficult to promote the *transfer of learning*. How would this compare to your experiences in this regard?
Question: Linkage within subjects and integration across curricular areas are encouraged in engaging with the Primary School Curriculum. What thematic approaches have you taken or would you like to take to the development of *cross-curricular links* in your work?

While teachers were asked about their experience with transfer of learning and cross-curricular linkage in separate questions, a majority of teachers connected the two areas in their responses.

Some teachers in all schools suggested that children's transfer of

learning, *happens automatically* and that teachers would *naturally link a project across subjects* since *teachers know that all learning is related.* Some teachers explained while they were *not good at planning a thematic approach [to learning]* they were *always trying to make links.* In general, teachers focused more on their own awareness of opportunities for curriculum linkage and transfer, than their children's awareness, e.g. *I suppose if you are a teacher in the same class you tend to know the sorts of things that you can transfer to different subjects.*

Teachers in all schools cited examples of using one or more of the following strategies to support curriculum linkage and transfer;

- making the link back to previous learning for children

- asking children to remember their previous learning

- using trigger questions to invoke previous learning

- enabling children to identify links across the curriculum, e.g. Maths and PE

Teachers had mixed views on whether or not children might be able to identify links themselves, as *children do not automatically see the links.* Teachers reported making curriculum links explicit for children, e.g. *I love to get them to see what we did and try to get them, even if they think they've forgotten it [previous learning], to tease it out again.*

Teachers in five schools reported using thematic, cross-curricular learning with children. One teacher reported engaging in mini-beasts as a topic, which included work in oral language, SPHE, writing, music and SESE: Science. A teacher in another school found there were many opportunities to link history and geography and showed ways of linking emigration to studies of America and Australia. Teachers reported using cross-curricular lessons *to make these sort of links and it makes it more of a story that the children really understand*

rather than separate facts. While teachers reported using thematic and cross-curricular approaches to learning with children, few reported planning for this learning on a regular basis.

Teachers identified two supports for cross-curricular learning: time for planning and school culture. In one school, where teachers have additional time to plan collaboratively, they reported regular, planned use of thematic learning, e.g. *if one person proposed a theme in Irish, another might suggest a poem. If it was a maths topic, someone may suggest a link with art.* In another school a teacher reported that the school culture was conducive to making cross-curricular links, citing involvement in the Fís Project, which is a filming media project, and a local Litter Campaign.

Challenges, which teachers associated with cross-curricular learning, **are related** to textbooks and parents' expectations and these are considered under separate headings.

Collaborative Learning

Individual teacher interview
The Primary School Curriculum: Introduction (p.17) promotes the benefits of collaborative learning.
Question: What opportunities have you had to engage children in your class in collaborative learning?

Teachers appeared to equate collaborative learning with group work. As one teacher asked, *and that would be groupwork?* The same teacher, teaching in St. Bernadette's considered that, *often there isn't room for the children's groups without a lot of upheaval.* The teacher was referring to the classroom size, the number of children in the class and to children's ability to work *in groups.* Other teachers in the same school also mentioned classroom and class sizes. Teachers in LETNS also referred to the influence of class size on engagement in collaborative

work. A teacher in St. Edward's however considered that it *works well at all levels as we do a lot of care work*. This teacher employs this approach throughout the curriculum and maintains that (for children) *there is a certain skill in being able to work with somebody else and to organise oneself*. A teacher in LETNS considered that collaborative learning took a lot of time and there was a lot to cover in the curriculum.

Teachers in three schools considered that additional guidance was necessary to enable a collaborative learning approach. A teacher in LETNS suggested that this could be made available on the web. Another teacher, in the same school, described the need to set and agree the ground rules for collaborative learning. Other teachers in LETNS noted

• the need for such learning to be structured

• that it was difficult to maintain, whilst being good for visual arts

• the attitudes of the more able children when required to work in groups with weaker children

• that it provided children with life-skills they will have for ever

A teacher of sixth class in the same school considered that, because of the amount of time spent on project work in that class, collaborative work has been constant.

Planning for collaborative learning
Teachers noted that planning for collaborative work required a lot of preparation, and that it was difficult in the infant classes. Teachers reported that children can have difficulty with the concept of turn taking and task sharing. Teachers also reported that collaborative learning is more successful in certain classes than others, i.e., maths and science as *hands on* subjects were conducive to collaborative

learning, but more academic subjects like English, posed greater challenges in using collaborative learning with children.

Collaborative learning as a strategy

The view of teachers was that the relative success or otherwise of collaborative learning often depends on the class group, and the class and classroom size. Strategies for collaborative learning which teachers reported included assigning roles within a group, for example a reporter and a motivator, and engaging in cooperative games

In general, teachers in the middle and senior classes, reported greater use of collaborative learning than their colleagues working with younger children.

Textbooks

In addition to data provided in this section (by children) on their experience with textbooks, a number of teachers also discussed textbooks and their use within the school. While there was general satisfaction with the content of the Primary School Curriculum, the comments on textbooks were more diverse. Teachers noted that recently published textbooks vary in the extent to which they are aligned with content and methods in the Primary School Curriculum. Teachers noted that Gaeilge textbooks published since the introduction of the Primary School Curriculum (1999) were *unattractive and outdated*. Consequently, teachers reported that many school textbooks often provide children with a poor stimulus for learning.

> *The material in the textbooks is not up to date, it is not fun,*
> *and it is not what they are interested in. It is hardly updated.*
> *It is the same old Seán and Pól doing the same old things*
> *that they did back in the day when we were learning it*
> *ourselves. It does not seem relevant to them.* (St. Bernadette's)

Teachers noted that given the variety of stimulation provided for children in their own environment, they are less interested in class textbooks than in previous years. Teachers noted that textbooks (both old and new) could be insufficiently challenging for children:

> *What there is in the Curriculum is fine, but what we need to*
> *do is find a book that will give a few extended questions to*
> *the brighter kids in the class. There is nothing for sixth class*
> *level. It is just not challenging enough.* (LETNS)

In contrast with the findings regarding children's enthusiasm for cross-curricular, project-based learning, teachers identified textbooks and parents' expectations in relation to the use of textbooks, to be impediments or challenges to cross-curricular learning. As one teacher reported, *when you have the textbook, well, children have bought it and you feel responsible, if it's not finished. If we do a lot of project work, it's very difficult to cover all the textbook. But we do use it as a resource.*

Data in the English section of this report (focus group and individual interviews with teachers and principals) have already noted teachers' successes using authentic resources for reading. Teachers reported the benefits of complementing and compensating the class reader with novels and other every-day reading materials (newspapers, posters, etc.). Teachers in three schools commented on the *freedom* of getting away from textbooks, *the textbooks can be restrictive* (St. Bernadette's) and the class reader e.g., *that has been the success story, getting away from the class reader and the over-emphasis on the class reader* (St. Edward's). A sixth class teacher explained that the English textbook could now

serve as a stimulus for reading, by providing abridged novels or books, which teachers and children could then choose to read in full:

> *It does encourage one or two children to go look for the full book. As you know children's attention isn't what it used to be. Short extracts are great, but to read the whole book sometimes wouldn't be such a good idea.* (St. Bernadette's)

Teachers explained that textbooks also serve the function of guiding curriculum implementation. In other words, teacher reported their satisfaction in knowing that by following the textbooks they were addressing the curriculum strands and strand units e.g., *every page tells me what part of the strands I am covering. So I do feel I am covering them* (LETNS). Readers were also seen as helpful in terms of standardisation, as one teacher from St. Bernadette's noted, *with the reader at least you know it's standardised – if they can read the fourth class reader, they're ok*. This raises concerns, given the extent to which textbooks may or may not reflect the concepts and skills identified in the curriculum. In terms of using textbooks to promote higher order thinking skills, one senior infant teacher commented, *there isn't a lot of scope within textbook material to do that* (LETNS).

Speaking about textbooks recently published for Irish-medium schools, one teacher reported, *N'fheadar conas a dheineas gan é go dtí seo (I don't know how I managed without it)*. While welcoming the publication of new textbooks in Gaeilge, teachers in Gaelscoil an Ghleanna noted that there were still far fewer textbooks and resources for Gaeilge in Irish-medium schools than for English in English-medium schools, *Cé mhéad pacáistí atá acu i mBéarla? Nuair a chíonn tú a bhfuil le fáil i mBéarla…Ba mhaith liom, ina theannta sin, níos mó téipeanna agus CD-ROManna (How many packages do they have in English? When you see what's available in English… I'd also like to have more tapes and CD-ROMs)*

ASSESSMENT

Assessment For Learning

Individual teacher interview
The Primary School Curriculum: Introduction (p.17) states that assessment is central to the process of teaching and learning. The NCCA is currently developing supports for teachers using assessment in the Primary School Curriculum. Question: What guidance could the NCCA provide that would be of most use to you in supporting your assessment of children's learning and achievement?

Teachers in all six schools emphasised the importance of using a range of assessment methods, so that the record of a child's achievement is not based solely on written work, *it is unfair to assess a child based solely on [comparisons with] their academic peers.* One teacher noted that the challenge of assessment in some curricular areas is greater than that in others, *it's probably very easy to assess maths and English, even Gaeilge, but I think something like science, geography, even for PE, we don't really assess, it's just really observation.* A teacher in St. Edward's noted that the curriculum mentions all the *tried and tested ways of assessing including the use of portfolio for art work.* Teachers explained that through assessment, *you find if children have particular strengths, maybe not in the areas where we traditionally assessed.* They noted that the aim of assessment is, *to ensure that they [children] can learn more effectively.*

While two teachers in LETNS and one in St. Bernadette's were not familiar with the term 'Assessment for Learning', teachers in all schools reported engaging in Assessment for Learning practices as part of the teaching and learning process. The reason teachers most frequently cited for engaging in Assessment for Learning was to identify progress in children's knowledge and understanding in order

to support it. Talking about maths tests a teacher from St. Bernadette's stated that, *I would use them to tailor learning.*

Teachers described their use of different assessment tools to support Assessment for Learning. A teacher in LETNS spoke of using a monthly learning log, which enabled children to review their progress and *identify areas where they may still have a problem.* Another teacher in St. Helen's reported encouraging children to look at their handwriting and note improvement made in this area over the course of a term or a year. Teachers in two schools noted the informal ways in which information about a child's progress is recorded and used to inform future teaching and learning. A senior infant teacher suggested that more formal records of teachers' notes would enable teachers to compile a full record of a child's progress over time.

> *I think we should record it more because I think every teacher does automatically assess. The one thing that I would say about it is that maybe somebody else might have assessed a child as having particular problems or whatever … I think we shouldn't become locked into this and put him in a box.*
> (St. Helen's)

Assessment Support

Individual teacher interview:
Question: What guidance could the NCCA provide that would be of most use to you in supporting your assessment of children's learning and achievement?

Teachers in all six schools spoke positively about the role of assessment in the primary school curriculum. A teacher from St. Angela's identified assessment as vital, *you cannot survive with curriculum without some form of assessment.* Likewise, teachers in all schools said

that they needed to know more about assessment tools and techniques, one stating that, *this might be one of the areas where we could make the greatest headway, in assessment.* In all six schools, teachers offered suggestions for extending the teacher guidelines on assessment in the Primary School Curriculum. Teachers identified three types of assessment needs: information about assessment, assessment tests and tools and targets showing achievement of different children at different levels.

Information about assessment

Teachers explained their need to understand the purpose and function of different assessment tools to ensure the assessment tool assesses what it is supposed to i.e., *children's learning.* One teacher noted that assessment can highlight problems with methodology and teacher effectiveness i.e. teachers can be prompted to examine what they are doing themselves as well as examining pupil's learning. Teachers noted the importance of sharing assessment expertise. They suggested that much could be learned from an assessment expert who would *address themes or central points on different assessment topics.* Teachers advised that this expert could be a teacher, *maybe pinpointing teachers who are really good in particular areas of assessment who can come and give talks.* Other types of support which teachers considered useful included *information on strategies that teachers have used and found effective in the context in which they work.* Teachers suggested that web-based information and resources, and *posters with pointers, tips or strategies which a teacher could refer to easily* would also be of help. A teacher in LETNS noted that involving parents in assessment would be a positive step, *it's really important for the children and I think parents would feel happier as well knowing that they are directly involved in the progress of their child and that they're helping out.* A teacher in St. Bernadette's referred to parents as having a different role, *parents like to see snippets of how they [the children] are doing and what they're doing.*

Class size was identified as a challenge to assessment by teachers who noted the difficulties involved in managing to record and keep track of assessment information in larger classes.

Teachers noted that different groups use assessment information for different purposes – parents, pupils, inspectors, learning support teachers, current class teachers and future class teachers were identified as the audiences for assessment information, and various purposes were referred to. These purposes included identifying strengths and weaknesses in particular curricular areas in order to plan class, group and individual work, informing the next class teacher, allowing parents to be involved in their child's learning and encouraging pupils to *look positively at their own learning – it can be a positive experience for the child, because it makes his/her learning more effective*. In terms of standardised tests, two teachers cautioned that less positive outcomes are possible from the use of these types of testing tools- publishing results and *teaching to* the tests were described as possible negative outcomes. One teacher suggested *a whole staff approach to assessment* (St. Bernadette's). Informal testing was described as a frequent form of assessment by two of the teachers interviewed.

Curriculum-aligned tests and assessment tools

Teachers reported their need for assessment tools including curriculum-aligned tests that would show children's progress with the curriculum in specific subjects. Teachers noted that *it is very hard to do an in-depth assessment or even to find the time in your plans to create a template that is suitable to quickly but effectively assess every child in a class of 30* (LETNS). The extra workload on teachers to plan, carry out and follow-up on assessment tasks emerged as another challenge identified by respondents in three schools. Teachers noted that while suggestions in the curriculum books were satisfactory, *they're too broad…just something a bit more structured is needed* (LETNS). Teachers

saw recording and reporting children's progress as having an important role in developing children's self esteem. As one teacher noted, *assessment can be a positive experience for the child*. Tests for the Gaeltacht schools for the Irish language and for English language were identified as necessary by teachers from the Gaeltacht school. Teachers noted that certain subjects were more challenging to assess than others, with maths, English and Irish Language being seen as less challenging and visual arts as more challenging.

Samples of children's work and attainment targets

Teachers reported their need to see *what a child's progress should look like at different stages in their schooling*. Teachers explained that having a summary of what the child should be able to achieve at the end of the school year would enable teachers to work toward developing a picture of a child's progress over one school year. Attainment targets in maths were discussed by a teacher in St. Bernadette's who explained, *if we actually had an idea written down in front of us like 'At the end of fourth class every child should be able to…'*. The same teacher suggested linking attainment targets to every strand in maths. Similarly, a teacher in LETNS suggested that a checklist with targets for the first term, second term and third term in each subject would enable teachers to work towards *the target that they [children] were meant to reach*. In contrast, checklists were not seen as the solution to the challenges of assessment by one teacher from St. Edward's who explained, *I know what teachers don't want is a folder full of checklists.*

A summary of findings in this section and recommendations arising from the findings are included in the Executive Summary at the beginning of this report.

SECTION 6:

CONCLUSIONS

CONCLUSIONS

The NCCA is very grateful to the many children, parents, principals and teachers who participated in this Primary Curriculum Review. We thank the 719 teachers who completed an 18 page questionnaire on their curriculum experiences, and the 6 school principals who opened their doors and their professional lives to us during the 2003/2004 school year. Our school–based research enabled us to ensure that this review would be informed by the different experiences of principals, teachers, parents and children with the Primary School Curriculum. Teachers and principals gave generously of their time, describing their experiences with the Primary School Curriculum while simultaneously reporting lack of time as one of their greatest challenges. Although this study has ended, the NCCA has forged a link with these schools, which continues through informal dialogue and participation in the life of the schools. The work following on from this review is only just beginning.

The implications of these findings for the NCCA focus on

- the English Curriculum

- involvement of parents/guardians in their children's learning

- methods of teaching and learning in primary schools

- assessment of children's learning

THE ENGLISH CURRICULUM

The organisation of the English Curriculum was identified as a key challenge by teachers. The four strands were reported to be vague and hard to understand. Findings show that many teachers have abandoned the strands or have replaced them with the strand units. In either case, teachers have experienced difficulty and confusion in planning for English. The NCCA recommends that the organisational framework (strands and strand units) for the English Curriculum should be revised to ensure that the curriculum for English is presented in a manner which is accessible to teachers and which enables them to plan for, and to support children's learning in the primary school. The process of revising the strands should also include an examination of the function of spelling, phonics and grammar in the English Curriculum which should result in specific guidance for teachers on strategies for *extending [children's] vocabulary, developing a command of sentence structure, and mastering the conventions of grammar, punctuation and spelling* (English Curriculum, p.6).

Writing was the strand unit with which teachers and principals experienced least success. Children reported limited enjoyment of writing in English. Findings showed that children's engagement with different writing genres was limited. Teachers' reports of children's use of ICT for writing highlighted children's lack of engagement with process writing, which is an important feature of the curriculum in English. *The facility of word-processing can not only encourage and help the child in drafting, editing and rewriting but can underline the fact that this operation is an intrinsic part of the writing process* (English Curriculum, p.9). These findings indicate that further support may be necessary to support teachers in implementing writing in the English Curriculum. The NCCA recommends developing practical

guidance to enable teachers implement an effective programme on the writing process (including the use of ICT) with children. The NCCA has recently had experience of working with a small group of teachers in a developmental project on assessment in visual arts to inform the development of assessment guidance for teachers.

The NCCA's recently established Language Committee, with a remit to advise on language in the Primary School Curriculum, is well placed to support these two areas of work in English.

Involvement of parents/guardians in their children's learning

While there were notable exceptions in two case study schools, occasional meetings and written notes formed the basis for involvement in children's learning. As two of the schools showed, parents can and do contribute significantly to the life of a school in terms of their time and their resources. Parents themselves reported their need to have much more information about their children's curriculum and the approaches and methods used by teachers, which parents could also use, in supporting their children's learning in different subjects. The NCCA is currently committed to developing *guidance materials for parents of primary school children which provide information about the curriculum and demonstrate how parents can support the work of the school in implementing the Primary School Curriculum* (Strategic Plan, 2003–2005, p. 23). The NCCA recommends that this work which began in late 2004 should be extended to include information for schools about how best to involve parents in their children's learning.

Methods of teaching and learning in primary schools

Findings on methods of teaching and learning are at the heart of this report. Teachers' strong ownership of the child–centred theories

underpinning the Primary School Curriculum, contrasted with their limited ownership of child-centred teaching and learning methods. For example, findings from teachers highlighted a need for further guidance on how to use different organisational strategies, including group work and pair work, in overcoming a dependence on whole class teaching. Collaborative learning, whereby children learn with and from each other, is a principle of learning in the Primary School Curriculum. Pair work and group work offer enormous potential for collaborative learning. While the use of different organisational strategies is important for children throughout the primary school, group/paired work needs to be encouraged and supported especially in the junior classes, given how children learn and develop in early childhood. Differentiated support/guidance would enable teachers to apply the most appropriate teaching methods to implement the curriculum, according to the age groups taught.

Children reported that in addition to collaborative learning, the way they learn a subject can determine how much they like that subject. Activities which involved

- collaborative learning (pair work, group work)

- active learning (hands-on activity physical activity, play)

- inquiry-based learning (ICT, choice)

- differentiated learning (needs-based)

- authentic learning (projects with a real-world focus)

were reported most enjoyable and interesting for primary school children, regardless of the subject. These methods of learning involve distributing the control of learning, so that children assume greater responsibility for their own learning. Greater use of these learning methods by teachers would help alleviate the pressures of time in

implementing the primary school curriculum. For example greater use of project-based learning and authentic resources would enable teachers to address concepts and skills in a number of subjects simultaneously, and alleviate to some extent, the burden of teaching eleven curriculum subjects. Similarly, greater support for teachers in planning and differentiating learning for children would alleviate the pressures of addressing children's diverse learning needs (in multi-class settings) using traditional organizational strategies and methods. Given the extent of the findings regarding teaching methods with the Primary School Curriculum, the NCCA recommends developing targeted supports which would enable teachers to move further from a teacher-centred to a child-centred pedagogy. The NCCA's experiences working with groups of teachers in the Assessment for Learning project would be very helpful in informing the design of these developmental projects.

Assessment of children's learning

Teachers reported a need to increase their knowledge of and competencies in assessment of student progress. Teacher observation was the most frequently reported assessment tool used by teachers. Although almost 100% of teachers reported using teacher observation at least a few times each week, teachers requested advice on how to record their observations as evidence of assessment, and how to use their observations to make decisions about teaching and learning. Teachers requested greater advice on the use of different assessment tools and resources. Additionally, teachers and principals reported their need for information on reporting information about children's learning to parents/guardians. The NCCA recommends that the work of Council in providing assessment guidance continues, including development of

- an overarching statement on assessment in primary schools

- a guide to using a range of assessment tools in the Primary School Curriculum

- targeted advice on using assessment in specific curriculum subjects.

The NCCA recommends that exemplification of student work for each level of the curriculum (combination of 2 classes), across all subjects, should also be developed to support teachers' classroom assessments. Such examples of student work should also be accessible to parents.

The findings in this report are both exciting and challenging for the NCCA. As teachers continue to implement the Primary School Curriculum, the NCCA recommends gathering information on experiences in the 8 other curriculum subjects: Gaeilge, history, geography, science, social personal and health education (SPHE), music, physical education and drama, from multiple perspectives. The NCCA also recommends making review and reflection templates available to teachers to support their own school-based reviews in these subjects, as during the 2003/2004 year of curriculum review and consolidation. Given the important role of the PCSP and the SDPS in supporting teachers' ongoing curriculum implementation, the NCCA recommends engaging both organisations in the recommendations arising from this report.

A PPENDIX A

Review and Reflection:

Template for Teachers

Template for Schools

Action Plan for Schools

Downloadable from the following link:

http://www.ncca.ie/en/Curriculum_and_Assessment/Early_
Childhood_and_Primary_Education/Primary_School_Curriculum/
Primary_Curriculum_Review_PCR_/PCR_Publications/

A PPENDIX B

Primary Curriculum Review,

Phase 1.

PHASE 1

Primary Curriculum Review
Individual Interview with Principal

The following interview guide will be used for the first individual interview with the principal. This interview is scheduled to last approximately 35 – 45 minutes.

A. SCHOOL PLANNING

Planning in the school … should be rooted in the belief that the process of curriculum change will make a real difference to the quality of children's lives both now and in the future… (Introduction, pg. 63).

Interviewer – I'd like to focus on your experiences of the planning process for curriculum change in your school.

1. What is your understanding of your role in leading curriculum implementation in your school?

2. Do you have a school plan for the three subjects that have been in-serviced and implemented: English, visual arts and mathematics?

The next few questions focus on the development, implementation and review of school plans. In answering these questions, which subject would you like to talk about?

3. Who has been involved in this school planning process? What strategies do you use to involve these different partners? Have other people been involved in school planning for other subjects?

4. How and by whom is the implementation of the school plan for X subject monitored, evaluated and revised?

5. In your experience, what are the three most critical considerations in school planning?

6. What strategies do you, as principal, use to encourage and enable teachers to collaborate in their classroom planning.

B. CURRICULUM SUBJECTS

ENGLISH

7. The curriculum advocates a coherent school plan for the teaching of English throughout the school. This plan should include consideration of the language needs of the particular children in your school. What is the extent of children's language needs in your school (ethnicity, special educational needs, home language). At a school planning level, how does the school cater for this diversity?

MATHEMATICS

8. Is there a common approach to the language/vocabulary used in the teaching of mathematics from junior infants to sixth class?

VISUAL ARTS

9. To what extent have you and the teachers in your school planned for linkage within the visual arts curriculum and integration with other subjects?

C. ASSESSMENT

Assessment is an essential component of a successful teaching and learning process…the teacher should give careful consideration to the forms and uses of assessment that will best facilitate the learning process and provide the most relevant information about the progress of individual children (Introduction, pg 66).

10. Do you have a school policy on assessment? Who was involved in developing this policy?

11. What tools of assessment are used (e.g. problem-solving tasks, standardised tests, portfolios, work samples, discussion, play scenarios)?

12. How do you ensure the early identification of children with learning difficulties including learning disabilities?

13. Can you briefly outline what types of assessment records your school keeps. How are they used?

14. What arrangements are in place for reporting to parents/guardians?

15. In the implementation of the six subjects above, what are the three most significant challenges you currently experience in assessing children's progress?

D. Involvement of parents, Board of Management, local community

16. How does your school inform parents/guardians and the Board of Management about the six subjects in-serviced to date? (e.g. presentations, newsletters, exhibitions) Which of these have you found to be effective? Why?

17. What opportunities do you have for involving parents/guardians and the local community in teaching and learning in the classroom (e.g. shared reading, project work, artist in residence)?

E. Conclusion

The implementation of the Primary School Curriculum provides schools with a unique opportunity to enhance the quality of educational provision. (Introduction, pg. 62).

18. In your experience as a principal, how has the Primary School Curriculum impacted on the quality of children's educational experiences in your school?

19. What are your school's successes and strengths in implementing the Primary School Curriculum?

20. What, in your experience, are the three most significant challenges you face as a school, in implementing the Primary School Curriculum?

PHASE 1

Primary Curriculum Review
Individual Interview with Teachers

The following interview guide will be used for the first individual interview with teachers. This interview is scheduled to last approximately 35 – 40 minutes.

A. ENGLISH

STRANDS AND STRAND UNITS

1.   The English curriculum consists of four strands:

• Receptiveness to language
• Competence and confidence in using language
• Developing cognitive abilities through language
• Emotional and imaginative development through language.

Each strand of the English curriculum is organised into three strand units:

• oral language
• reading
• writing.

a. What are your overall impressions of the content strands and strand units of the Visual arts curriculum?

b. How successfully do you think you have implemented these strands and strand units in your teaching?

2. Language is given a central role in the content strands of the curriculum. How have you as a class teacher reflected this in your teaching?

APPROACHES AND METHODS

3. In the English curriculum, talk and discussion, play and games, story and improvisational drama are seen as powerful learning strategies. How do you incorporate these into your classroom practice?

4. How do the nature, quality and extent of language activity in your classroom support the introduction of reading?

B. VISUAL ARTS

5. The Visual arts curriculum consists of six strands:

- Drawing
- Paint and colour
- Print
- Clay
- Construction
- Fabric and fibre.

Each strand of the Visual arts curriculum is organised into the interrelated strand units

- Making art
- Looking and responding to art

c. What are your overall impressions of the content strands and strand units of the Visual arts curriculum?

d. How successfully do you think you have implemented these strands and strand units in your teaching?

6. The curriculum emphasises the importance of attentive looking by children in making art and responding to art. What opportunities have you provided for children to develop their capacity for close observation of their own or others' art?

APPROACHES AND METHODS

7. The curriculum states that 'Guided discovery is the most appropriate teaching method for the Visual arts.' (Guidelines page 54). What does this statement mean to you? How do you apply it in your teaching of Visual arts?

8. How do children in your classes use materials and tools to experiment and explore in Visual arts?

C. MATHEMATICS

9. The Mathematics curriculum consists of five strands:

- Number
- Algebra
- Shape and space
- Measures
- Data.

Each strand of the Mathematics curriculum is organised into interrelated strand units, per level of the curriculum. For example the strand units in Number for level 3 (third and fourth classes) are

- Place value
- Operations (+, -, x, ÷)
- Fractions
- Decimals

a. What are your overall impressions of the content strands and strand units of the Mathematics curriculum in the classes you have taught?

b. How successfully do you think you have implemented these strands and strand units in your teaching?

10. In your opinion is the content of the mathematics curriculum suitable for the levels you have taught since the implementation of mathematics commenced? Why/Why not?

APPROACHES AND METHODS

11. Changes in methodology in maths have resulted in a greater emphasis on guided discussion and on a hands-on approach from infants to sixth class. How are these changes reflected in your class teaching?

12. Understanding mathematical language leads to the correct interpretation of mathematical symbols and accurate reading of algorithms or word problems. In the teaching of mathematics how do you support children's understanding of 'mathematical' language when discussing areas of the mathematics curriculum with children in your class(es)?

D. GENERAL

13. To what extent, and to what effect, have you been involved in the development of school policy for each of these three subjects:

- English
- Visual arts
- Mathematics?

14. What types of differentiation do you use to increase access to the Primary School Curriculum when planning for individual difference in your classroom?

15. Is there anything else you would like to add regarding your experience using the Primary School Curriculum documents, i.e., the curriculum statements and teacher guidelines?

PHASE 2

Primary Curriculum Review
Focus Group Interview with Children

The following interview guide will be used for the focus group interviews with children. This interview is scheduled to last approximately 15 – 30 minutes.

A. CLASSROOM DISPLAYS/CHILDREN'S WORK (5-10 MIN)

I see that your class has been busy learning about… /I'm really impressed with all of your work on… /Can you tell me a little about …what this project was all about?/….what have you been doing and learning in…?

- English
- Mathematics
- Visual Arts

B. APPROACHES AND METHODS (5 MIN)

Can you tell me who you worked with to create …? Did you talk to the teacher/other children in the class when you were making/learning…?

- Individual work
- Pair work
- Group work
- Class work

Do you like learning with other children/by yourself? Why? Why not?

C. MATERIALS/RESOURCES (5 MIN)

Can you tell me about the materials you used to create …? What kinds of books have you been using to learn about…?

- Books (e.g., textbooks, reading books)
- Learning resources (e.g., games)
- Visual arts materials (e.g., 2-D, 3-D)
- ICT resources (e.g., Internet, educational software)

D. LIKES/DISLIKES, SUCCESSES/CHALLENGES (5 - 10 MIN)

What was your (least/) favourite part of… ? /What did you like most/least about…?

Do you think it is important to learn about…? Why?

What was the most exciting part of … for you? Why?

E. ADDITIONAL QUESTIONS

Can you tell me about …

- **special school events/occasions** recently held in the school or class
    - Learning groups
    - Information sessions
    - Concerts, etc.

- **time** spent learning within the three curriculum areas
    - Pacing/sequencing of teaching/learning
    - Balance of learning experiences

- **audience** for the child's work
    - Involvement of parents/community members in children's learning

PHASE 2

Primary Curriculum Review

Focus Group Interview with Parents

The following interview guide will be used for the focus group interview with parents. This interview is scheduled to last approximately 35 – 45 minutes.

A. INVOLVEMENT IN YOUR CHILD'S LEARNING

1. Can you describe some of the opportunities you have had to be involved in your child's learning in school?

2. Can you describe some of the ways in which you are involved in your child's learning at home?

B. CURRICULUM CHANGES IMPACTING ON YOUR CHILD'S LEARNING

3. What types of activities/learning does your child experience in school?

4. Have you noticed any significant changes in what your child learns in school over the last few years? Have those changes influenced your child's learning? If so, how?

C. ASPIRATIONS AND EXPECTATIONS

5. What do you think are the most important learning experiences for children in school?

6. If you could make one change to what your child learns in school, what would that be? Why?

D. SUPPORTING PARENTS/GUARDIANS IN THEIR ROLE AS EDUCATORS

7. Are there particular areas of the curriculum you find challenging in supporting your child's learning? Why?

8. If you have questions about parts of the curriculum, who would you usually ask?

9. As a parent/guardian, are there particular types of information you would like about your child's learning in school?

10. In what ways do you think this information might be made available to parents?

PHASE 2

Primary Curriculum Review
Focus Group Interview with Teachers and
Principal

The following interview guide will be used for the focus group interview with teachers (and principals). This interview is scheduled to last approximately 35 – 40 minutes.

A. ENGLISH

The English curriculum consists of four strands:

- Receptiveness to language
- Competence and confidence in using language
- Developing cognitive abilities through language
- Emotional and imaginative development through language.

Each strand of the English curriculum is organised into three strand units:

- oral language
- reading
- writing.

This is the fourth year of implementation of the English curriculum. This has also been a year of Consolidation and Review.

1. The English Curriculum consists of four strands. How **useful** are these strand headings in planning for the English curriculum?

2. What **challenges** have you experienced in using the strands and strand units (in the junior/senior classes)?

3. What **successes** have you experienced in relation to the implementation of the English curriculum in your school?

B. Visual Arts

The Visual arts curriculum consists of six strands:

- Drawing
- Paint and colour
- Print
- Clay
- Construction
- Fabric and fibre.

Each strand of the Visual arts curriculum is organised into the interrelated strand units

- Making art
- Looking and responding to art

4. How **useful** have the strands and strand units been in planning for and in implementing the Visual arts curriculum in your school?

5. What **challenges** have you experienced in planning for the implementation of the Visual arts curriculum (at different class levels)?

6. What **successes** have you experienced in relation to the implementation of the Visual arts curriculum in your school?

C. Mathematics

The Mathematics curriculum consists of five strands:

- Number
- Algebra
- Shape and space
- Measures
- Data.

Each strand of the Mathematics curriculum is organised into interrelated strand units, per level of the curriculum. For example the strand units in Number for level 3 (third and fourth classes) are

- Place value
- Operations (+, -, x, ÷)
- Fractions
- Decimals

7. How **useful** have you found the strands and strand units in planning for the implementation of the Mathematics curriculum in your school?

8. What **challenges** are associated with planning for and implementing the Mathematics curriculum in your school (at different levels)?

9. What **successes** have you experienced in relation to the implementation of the Mathematics curriculum in your school?

D. ASSESSMENT

10. How do you **currently assess** children's learning in English, Visual Arts and Mathematics? *(What approaches do you use when assessing children's learning?)*

11. What are the **main challenges** you face when assessing children's learning in these subjects?

12. What are the **main successes** you have experienced when assessing children's learning in these subjects?

13. What **areas do you assess**? (These include curriculum areas, diverse aspects of learning: the cognitive, the creative, the affective, the physical and the social, as well as growth in self-esteem, interpersonal and intrapersonal behaviour, and the acquisition of a wide range of knowledge, skills, attitudes and values.)

14. How can the NCCA provide **assistance and support** for teachers in the area of assessing, recording and reporting children's learning?

E. GENERAL

15. Given that the purpose of the case study and this focus group interview is to gain an insight into your experiences implementing the Primary School Curriculum (1999)—if you were in my position what further questions would *you* ask?

PHASE 3

Primary Curriculum Review
Individual Interview with Teachers

The following interview guide will be used for the concluding individual interview with teachers. This interview is scheduled to last approximately 35 – 40 minutes. The interview begins by discussing some of the findings from the Primary Curriculum Review, Interim Report.

During the course of the current school year, the NCCA has been engaged in the process of curriculum review. The focus has been, in particular, on Language, Mathematics and Visual arts. Completed teacher templates were received from teachers in a scientific sample of c. 177 schools. Preliminary data analysed from these responses highlights a number of issues relating to curricular areas where further guidance may be required. Some of these issues relate to

- The development of higher-order thinking skills
- The transfer of learning
- Assessment
- The development of a reading culture
- Cross-curricular links
- Collaborative learning

A. DEVELOPMENT OF HIGHER-ORDER THINKING SKILLS

The Primary School Curriculum: Introduction (p.16) identifies higher order thinking skills as those of summarising, analysing, making inferences and deductions, and interpreting figurative language and imagery.

1. What do *higher-order thinking skills* mean to you?

2. Where do you find opportunities to foster these skills in children in your class/es?

B. Transfer of Learning

Report data from our teacher template study suggest that some teachers find it difficult to promote the transfer of learning with their students.

6. What does *transfer of learning* mean to you? / How would you define it in your own practice?

7. What experiences/opportunities have you provided children to support their transfer of learning?

C. Assessment

The Primary School Curriculum: Introduction (p.17) states that assessment is central to the process of teaching and learning. The NCCA is currently developing supports for teachers using assessment in the Primary School Curriculum.

6. What guidance could the NCCA provide that would be of most use to you in supporting your assessment of children's learning and achievement?

D. Developing a Reading Culture

The curriculum highlights the importance of creating a print-rich environment which affords access to a range of texts, enabling the child to develop personal tastes and interests by having the freedom to choose reading material.

7. What have you done or would you like to do to promote a reading culture in your classroom?

E. Cross-Curricular Links

Integration across curricular areas is one principle of the Primary School Curriculum.

6. How have you/would you plan to develop cross-curricular links in your work with children?

F. Collaborative Learning

The curriculum promotes the benefits of collaborative learning.

7. What opportunities have you had to engage children in your class in collaborative learning?

G: GENERAL

8. Given that the purpose of the case study and this interview is to gain an insight into your experiences in implementing the Primary School Curriculum (1999)—if you were in my position what further questions would *you* ask?

PHASE 3

Primary Curriculum Review
Individual Interview with Principals

The following interview guide will be used for the concluding individual interview with principals. This interview is scheduled to last approximately 35 – 40 minutes. The interview begins by discussing some of the findings from the Primary Curriculum Review, Interim Report.

During the course of the current school year the NCCA has been engaged in the process of curriculum review. The focus has been, in particular, on Language, Mathematics and Visual arts. Completed teacher templates were received from teachers in a scientific sample of c. 177 schools. Preliminary data analysed from these responses highlights a number of issues relating to curricular areas where further guidance may be required. Some of these issues relate to

- The development of higher-order thinking skills
- The transfer of learning
- Assessment
- The development of a reading culture
- Cross-curricular links
- Collaborative learning

A. DEVELOPMENT OF HIGHER-ORDER THINKING SKILLS

The Primary School Curriculum: Introduction (p.16) identifies higher order thinking skills as those of summarizing, analysing, making inferences and deductions, and interpreting figurative language and imagery.

3. What do *higher-order thinking skills* mean to you?

4. How do you/can you plan to support children's higher-order thinking at school level?

B. TRANSFER OF LEARNING

Report data from our teacher template study suggest that some teachers find it difficult to promote the transfer of learning with their students.

8. What does *transfer of learning* mean to you? / How would you define it in your own practice?

9. How do you/can you plan to support children's transfer of learning at school level?

C. ASSESSMENT

The Primary School Curriculum: Introduction (p.17) states that assessment is central to the process of teaching and learning. The NCCA is currently developing supports for teachers using assessment in the Primary School Curriculum.

7. What guidance could the NCCA provide that would be of most use to your staff in supporting assessment of children's learning and achievement?

D. DEVELOPING A READING CULTURE

The curriculum highlights the importance of creating a print-rich environment which affords access to a range of texts, enabling the child to develop personal tastes and interests by having the freedom to choose reading material.

8. What have you done or would you like to do to promote a reading culture within your school?

E. CROSS-CURRICULAR LINKS

Integration across curricular areas is one principle of the Primary School Curriculum.

9. How have you/would you plan to support your staff in developing cross-curricular links across children's learning with the curriculum?

F. COLLABORATIVE LEARNING

The curriculum promotes the benefits of collaborative learning.

10. How do you/can you plan to support collaborative learning among children at school level?

G: SUCCESS

11. What have been your greatest successes in your role as principal, implementing the Primary School Curriculum in your school?

H: CHALLENGE

12. What has been your greatest challenge in your role as principal, implementing the Primary School Curriculum in your school?

I: PRIORITY

13. Where do you see yourself one year from now in your school's implementation of the Primary school Curriculum? What is your greatest priority?

J: CHALLENGE

14. What has been your greatest challenge in your role as principal in implementing the Primary School Curriculum in your school?

K: GENERAL

15. Given that the purpose of the case study and this interview is to gain an insight into your experiences in implementing the Primary School Curriculum (1999)—if you were in my position what further questions would *you* ask?

APPENDIX C

Committee Membership

and

Team Membership

Membership of the Early Childhood and Primary Committee

Chairperson

Mr. Tom Gilmore   Irish National Teachers Organisation

Committee members

Mr. Sydney Blain   Church of Ireland Board of Education

Ms. Jacqueline Fallon   Centre for Early Childhood Development in Education

Ms. Eileen Flynn   School Development Planning Initiative Primary

Mr. Declan Kelleher   Irish National Teachers Organisation

Ms. Fionnuala Kilfeather   National Parents Council, Primary

Ms. Aine Lawlor   Primary Curriculum Support Programme

Ms. Deirdre Lyddy   Department of Education and Science

Mr. Christopher McCamley   Department of Education and Science

Ms. Marie McLoughlin   Primary Curriculum Support Programme

Mr. Paddy Murchan   Catholic Primary School Managers Association

Ms. Deirbhile Nic Craith   Irish National Teachers Organisation

Mr. Heino Schonfeld   Centre for Early Childhood Development in Education

Dr. Eugene Wall   Irish Federation of University Teachers

Names in italics represent past members of the Early Childhood and Primary Committee, who served on the committee during the development of the Primary Curriculum Review.

Membership of the
Primary Curriculum Review Team

Ms. Anne Bermingham	Part-time Education Officer
Ms. Bairbre Boylan	Education Officer
Mr. Sean Bracken	Education Officer
Mr. Edward Canavan	Clerical Officer
Mr. Cathal de Paor	Education Officer
Mr. Tom Fagan	Higher Executive Officer
Dr. Sarah FitzPatrick	Deputy Chief Executive
Ms. Arlene Forster	Director, Curriculum and Assessment
Mr. Jason Keogh	Clerical Officer
Mr. Morgan Lockhart	Clerical Officer
Ms. Deirdre Mitchell	Clerical Officer
Ms. Anne Moloney	Education Officer
Ms. Hilary Roche	Director, Curriculum and Assessment