TEACHING & ASSESSMENT

Issues in Assessment
INTO 1997
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Foreword

The revised primary school curriculum is due for completion in December 1997. Reflecting contemporary trends in education worldwide, the issue of assessment will assume a prominent role in the revised curriculum. Whereas assessment for the purposes of enhancing the teaching and learning process continues to be a routine part of teachers’ work, the growing emphasis which is emerging in relation to the use of test results for the purposes of evaluation is a cause of great concern to teachers.

Assessment for evaluation relies too heavily on summative information which is provided mainly by test results. It describes what children have already achieved. While assessment for evaluation assesses outcomes such as attainment or performance it is invariably children and schools which get labelled often leading to poor motivation or downright disengagement from the tasks of teaching and learning. Overemphasis on crude evaluation techniques such as aggregation of test results should be avoided in the Irish context.

This report is designed to highlight the positive and negative aspects of both testing and assessment on educational practice. Recognising that formal and informal formative and summative assessment will continue to be at the core of the teaching learning process, and that schools are also increasingly using standardised norm referenced and criterion referenced tests, the INTO’s objective in publishing this report is to provide information to teachers and the general public regarding current issues in assessment. While the report examines the impact of various forms of assessment including the current emphasis on standardised testing, it also looks at the possibilities which could be offered by adopting a pupil profiling system which could herald a way forward and contribute positively to the debate on issues relating to pupil assessment and school evaluation.

Senator Joe O’Toole,
General Secretary.
October 1997.

An Seanadóir Joe O’Toole,
Ard Rúnaí,
Deireadh Fómhair 1997
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Introduction

The INTO previously addressed the issue of assessment at its consultative conference on Education in 1989. Since then developments in Irish education have identified assessment as having a key role in the teaching and learning process. The Review Body on the Primary Curriculum (1990) initiated the current review of assessment in primary education by stating guiding principles on assessment and by making a number of recommendations. The Review Body’s report has led to the publication of a number of policy statements. The NCCA set out its policy position on assessment in its publication: *Curriculum and Assessment Policy Towards the New Century* (1993) and elements of this report were contained in the Government’s White Paper *Charting Our Education Future* (1995). The INTO has also issued policy statements on education assessment in *Among School Children* (1993) and *A Response to the White Paper* (1996).

Background to the Current Review of Assessment in Irish Primary Education

The economic recession in the 1980s led to cutbacks in the public service. The government sought to make savings in the primary education sector by reducing teacher numbers through an increase in the pupil/teacher ratio. Circular 20/87 was issued to give effect to this and it was opposed vigorously by teachers and parents. In the negotiations resulting from this opposition the circular was modified and it was agreed that there should be a general review of primary education. This had already been recommended by the Curriculum and Examinations Board some years earlier in its discussion document *Primary Education* (1985). Two reports were produced: *The Report of the Primary Education Review Body* and *The Report of the Review Body on the Primary Curriculum*.

The second of these describes assessment as an ‘integral process’ (p.80) of primary education and characterises the relationship between assessment and the curriculum as ‘a circular one’: assessment procedures are contingent on the relationship between the curriculum and the child’s interaction with it in the learning process. In this context,
assessment can facilitate the modification of teaching strategies and can lead to curricular revision.

This Report identified a number of characteristics that should be incorporated in a system of pupil assessment:

• the results of assessment should provide a basis for decisions about pupils’ future learning needs;
• assessment should provide information about pupils’ potential ability and about how they are performing in relation to the aims of the curriculum;
• assessment should be comprehensive enough to take account of the full range of abilities across all the subjects of the curriculum;
• the system of assessment should be related to and reflect the content and objectives of the curriculum;
• assessment procedures should allow for the effective communication of relevant information to parents, teachers, The Department of Education and other agencies;
• there should be continuity between classes and schools (primary and post-primary) in relation to such procedures;
• there is a need for a moderating component in any system of assessment.

The National Council for Curriculum and Assessment was entrusted with the task of implementing the recommendations of the Review Body and in 1991 it established Primary Curriculum Committees to review each subject area of the primary curriculum. The work of these committees in developing a revised primary school curriculum is scheduled for completion by December 1996.

The NCCA also set up an Assessment sub-committee which has set out initial NCCA policy on assessment in its report: Curriculum and Assessment Policy: Towards the New Century (1993). The NCCA policy document reflects the assessment and curriculum principles of the Review Body which were mentioned earlier. In its section “Purposes of Assessment” the document refers to:

\( \text{iv} \)
• assessment as an integral part of the teaching and learning process;
• assessment to facilitate improved pupil performance by providing information;
• the skilled and judicious use of a variety of assessment techniques which can have a positive effect on classroom practice;
• assessment as a formative and diagnostic process;
• the teacher as professional with a central role in the assessment of pupils at primary level.

The White Paper on Education (1995) incorporated many of the elements of the NCCA policy document and the majority of its proposals would command the support of primary teachers. Some, however, would cause considerable disquiet. The statement that ‘under the direction of the school principal students will be assessed by their teachers at the end of first and fifth class would be seen by many teachers as a form of institutionalised testing which could devalue the teaching process.

The Structure of the Report

This report discusses educational assessment in the context of the introduction of a revised curriculum. International research and practice in identifying assessment procedures as an important focus of educational reform is examined and the implications for Irish Primary Schools of the impact of an increase in educational assessment is analysed.

Chapter One attempts to contextualise and to put into perspective the international debate on assessment and testing. This is done through a review of the differences in assessment practice between Ireland and the United States. The chapter examines the positive and negative impact of assessment on educational practice and contends that an enlightened approach towards assessment can benefit the quality of pupil learning immensely. It cautions, however, that the pitfalls of a high-stakes assessment climate should be avoided.

Chapter Two puts forward a more radical view of assessment than has hitherto been the case. It examines the limitations of traditional
assessment practice, reviews approaches to assessment that are firmly rooted in modern research and theory, outlines the characteristics of effective formative assessment and states that assessment provides the basis for the modification of teaching strategies and the choice and provision of appropriate educational resources.

Chapter Three discusses the view of both Curriculum and Assessment Policy Towards the New Century (NCCA 1993) and The White Paper (1995) that there is value in maintaining in schools a comprehensive and continuous record for each pupil that would include, in summary form, an indication of the pupil’s achievement in different aspects of the curriculum. It also considers pupil profiles - records of student achievement in one or more areas of the curriculum that are based primarily on teacher judgement - as a form of assessment in three contexts:

- a rationale for curriculum profiles
- an examination of international research on curriculum profiles
- a description of preliminary work on the development of curriculum profiles in English, mathematics and music in the Educational Research Centre, Drumcondra.

The chapter concludes with a discussion of issues related to the implementation of curriculum profiles in the school.

Chapter Four is concerned with the introduction of new curricula in Northern Ireland with attendant statutory assessment. It describes the piloting of the assessment procedure which was a combination of curriculum profile style assessment and external tests. It also describes the problems of manageability that teachers encountered in using the piloting model and the eventual rejection of that model by teacher unions. It concludes with the contention that negotiation between the partners in education, adequate inservice education and the involvement of teachers in the design of assessment are essential if new assessment procedures are to be introduced successfully into an education system.

The final chapter outlines the INTO’s current thinking regarding assessment in the primary school.

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CHAPTER I

Testing Times for Educational Assessment

Introduction

As development work on a new primary curriculum nears completion, we are on the threshold of a new era in Irish primary education. Reflecting contemporary trends in education worldwide, the issue of assessment will assume a prominent role in the new curriculum. This chapter explores the growing importance ascribed to assessment and testing within education, and attempts to contextualise and to put into perspective the international debate on assessment and testing. This is done through a review of the striking differences in assessment practices between Ireland and the United States where much of the assessment debate originated and is currently centred. The chapter then proceeds to examine the positive and negative impact of both testing and assessment on educational practice. It contends that an enlightened approach towards assessment can benefit the quality of pupil learning immensely but cautions that the pitfalls of a “high-stakes” assessment climate should be avoided.

Sound assessment lies at the heart of effective teaching. In the course of their daily work, teachers acquire copious information about pupils, their aptitudes and abilities, the degree to which they are learning, the pupils’ attitudes and interests and the degree of pupil motivation. Much of this information is acquired informally and unsystematically as teachers engage with, and observe, pupils in a variety of learning and social situations. Teachers make judgements about how well pupils are learning and, where pupils encounter difficulties, teachers often posit explanations for the cause of these difficulties. Sometimes teachers employ more formal assessment procedures such as giving pupils written assignments or setting teacher-made tests. Occasionally, a standardised test may be used to provide information on pupils’ learning progress or to identify areas of learning difficulty. The term “assessment”, therefore, includes, but also extends far beyond, the more restrictive concept of “testing” and embraces a wide spectrum of
teacher activities which are designed to acquire information and make judgements about aspects of pupil performance and achievement.

The growth of assessment and testing

The growth in educational assessment and testing is not a recent phenomenon; rather there has been a steady upsurge in interest in assessment over the past thirty years. This prompted Rothblatt (1995) to comment that “in the UK, the construction of evaluation and assessment strategies is almost a national hysteria, nearly incomprehensible to an offshore observer”. Although this comment was specifically directed at higher education, it is no less relevant to other levels of the education system. Notwithstanding Rothblatt’s assertion, it is in the United States that educational assessment has had its most far-reaching and, arguably, its most harmful impact. Accurate information regarding levels of standardised test usage is notoriously difficult to acquire (Haney et al., 1993) but Morison (1992) reports that approximately 127 million standardised tests are taken annually by elementary students in the United States. Madaus and Kellegan (1992) estimate that when all categories of standardised tests are taken into account the figure is between 114 and 320 million. If this were translated into an Irish context, the comparable figure for this country would be in the region of between 2 and 5 million tests. As is the case with the US, it is difficult to gauge the extent of standardised testing in Irish primary schools. When account is taken of all types of standardised achievement, diagnostic and aptitude tests, it is extremely doubtful if the total number of test administrations exceeds a quarter of a million annually. This puts into perspective the extent of test usage within the United States and thereby provides a context for understanding the significance of testing in that country and the policy controversies surrounding assessment and testing there. Testing, and indeed assessment generally, operates on a much smaller scale in this country than in the United States. Unlike in many other countries, formal educational testing in Irish primary schools has remained a distinctly ancillary, almost marginal, activity. Whereas this has spared us many of the excesses of what Wirth (1993) has called the ‘epidemic of testing’, we have equally not harnessed the genuine potential that a coherent,
balanced and comprehensive approach to assessment and testing would bring. It is inevitable and indeed desirable, therefore, that the new curriculum should set out to raise the prominence of assessment. However, it is important in doing so that the lessons of other countries are heeded and that the myriad problems associated with the excesses of accountability testing are eschewed.

Several interconnected reasons have been advanced to explain the relentless rise of standardised testing in the United States over the past three or four decades. Firstly, the rise took place against a background of reported public dissatisfaction with educational standards in the United States. The perception of a “standards crisis”, whether real or contrived, (Berliner and Biddle, 1995, 1996; Stedman, 1996a, 1996b) was a significant catalyst in creating a climate of educational reform. A key element in this reform agenda was a resolute movement towards greater accountability with a consequential emphasis on the measurement of educational outcomes. As with the National Curriculum in the United Kingdom, assessment and testing were regarded by administrators and policy-makers in the US as a pivotal component in the drive to reform education and to improve quality (Morison, 1992). Describing accountability testing in the United States as a “vast enterprise”, Resnick & Resnick (1992) succinctly explain the rationale as follows:

“(The) power of tests and assessments to influence educators’ behaviour is precisely what makes them potent tools for educational reform. In imposing public accountability programs, it is the intention of state education departments and legislatures to influence what is taught and the standards of performance. In other words, tests have become instruments of school reform. They are introduced not just to provide neutral indicators of the education system’s performance, but also in the hope of upgrading curriculum, teaching and academic performance.”

This, in turn, has given rise to a welter of legislation at state and federal level which makes standardised testing mandatory. According to Madaus & Tan (1993), all 50 US states had mandatory standardised testing programmes of one type or another by the early 1990s. At the
time of writing, proposals for a “voluntary” system of national testing are at an advanced stage. This would allow all participating states and schools to be compared on common assessment instruments along the lines of the NAEP (National Assessment of Educational Progress) surveys.

This is in marked contrast to the situation in Ireland in several respects. Firstly, there has not been any groundswell of serious dissatisfaction over educational standards amongst teachers, parents, politicians, educationalists or other commentators. Arguably, criticisms of the Irish education system in recent years have more often crystallised around issues of equity, access, resourcing and relevance than around a “standards crisis”. The type of reform movement which characterised educational systems in other countries during the 1980s conspicuously never took root in Ireland. Secondly, in Ireland, unlike Britain and the US, there is no national legislation pertaining directly to the assessment and testing of pupils. The prospect of externally mandated testing was first mooted seriously in the 1992 Green Paper. As of yet, non-mandatory test usage remains the norm in Ireland and the undoubted rise in test usage in Irish schools in recent years to its present level is the result of voluntary decisions by teachers and schools to undertake such testing.

Moreover, several distinctive features of the educational system in the United States have contributed to the escalating level of test usage (Linn, 1992). One such feature was the requirement for many federally funded intervention programmes such as Title 1 (now Chapter 1) and Head Start to be monitored and to have their effectiveness evaluated (Koretz, 1992; Morison 1992); very few programmes of this type have been put in place in Ireland. Secondly, the use of tests for assigning pupils to different educational “tracks” is widespread in the United States (Glaser & Silver, 1994); this is not the case in Ireland. Thirdly, the extent of special educational provision in the US far surpasses that in Ireland. In contrast to this country, such provision is often underpinned by legislation, and admission and progression decisions are frequently linked to standardised test results. In the estimate given by Madaus and Kellegan, 10% of standardised tests are administered to special populations.
However, as noted already, one of the main driving forces behind the increased interest in assessment and testing in the US has been the emergence and consolidation of a pervasive accountability climate. Part of this climate is a generalised acceptance that a range of interest groups such as policy-makers, parents and the wider public have an entitlement to information and data on how effectively teachers, schools and the education system are performing. As a matter of public policy, a host of performance indicators, amongst them examination results and the results of externally mandated testing, are not only gathered but they are also publicly disseminated, scrutinized and influence important decision-making. These indicators are used to compare or evaluate the performance of teachers, to publicly rank schools, districts and states and to determine the basis of teacher promotion, merit pay and school funding. One of the more unsavoury by-products of making test scores publicly available has been their use by real estate agents in house marketing (Paris, Lawton, Turner & Roth, 1991; Shepard, 1989).

As evidence of the growing role of accountability testing, the state of Virginia recently passed legislation whereby pupils will be required to take statewide tests in grades three, five, eight and high school. Where 70% of more of pupils in a school do not meet the required passing standards, the school will lose its accreditation. The publication of test results, whether in league table form or not, is not simply a matter of accountability, however. In the United Kingdom, as in many other countries, this practice is explicitly intended as a market mechanism to promote choice and competitiveness and thereby improve efficiency (Whitty, 1997). There have not been any concerted efforts to ‘marketise’ education in Ireland along the lines of other countries although strong nuances of this approach are clearly discernible in the Green Paper on education (1992).

Testing and Assessment in Ireland

Although there exists an extensive and diverse range of standardised psychological and educational tests, many of these tests are not suited to the Irish context. In fact, it would seem that test usage in Irish schools is largely confined to certain categories of tests. Foremost among these are standardised achievement tests and, to a lesser extent, standardised
ability or aptitude tests. In the absence of well-grounded empirical data, the views which are presented on this point are largely impressionistic and derived in the main from my involvement with remedial and class teachers at in-service courses over the past fifteen years in Mary Immaculate College of Education. Standardised achievement testing now appears to be widespread in Irish primary schools, particularly in the areas of reading, spelling and mathematics. Furthermore, both class teachers and remedial teachers are involved to varying degrees in the selection, administration and scoring of these tests. In addition, remedial teachers, by virtue of their roles, have more recourse than most classroom teachers to diagnostic tests. At second level, specialised remedial provision is only gradually becoming more widely available and the lack of suitable test instruments is a serious constraint. Standardised testing at this level tends to be vested mainly in guidance counsellors and remedial teachers.

Ability testing in Irish primary schools is clearly hampered by the absence of suitable test instruments that are normed for Irish children. Such tests would serve a valuable function through allowing teachers to screen for children with learning disabilities and also by enabling teachers to ascertain the extent to which a general learning disability is a contributory factor to a child’s learning problems. Ability testing is not routinely conducted in most Irish primary schools although it can be reasonably deduced that its incidence is increasing due to the growing number of remedial teachers.

The functions of assessment

Assessment serves a broad range of important functions within education. These functions can be categorised in many ways, some of which overlap with each other. One particularly significant distinction is between assessment which is primarily undertaken for the purpose of instructional monitoring and decision-making in contrast to assessment which serves an accountability function. Let us begin by reviewing the first of these functions, namely the role of assessment in supporting pedagogical decision-making within the class and school. The Instructional Monitoring and Decision-making aspects of assessment
can be further sub-divided into the following

- Monitoring pupil progress
- Screening and Placement
- Diagnosing Difficulties and their Causes
- Providing Feedback to Teachers, Parents and Pupils
- Contributing to programme evaluation and planning

**Monitoring Pupil Progress**

One of the most pervasive functions of assessment is for monitoring levels of progress of pupils in different curricular areas. Traditionally, this has been done using norm-referenced tests. The use of norm-referenced tests enables teachers to assess how the performance levels of their pupils compare with national norms. As Pumfrey (1991) has described it:

> “The focus in normative testing is on efficiently, systematically and validly assessing and comparing particular aspects of children’s... attainments with each other and with the larger group on whom the tests were developed.”

Clearly, even without a norm-referenced test, a class teacher will generally have little difficulty in accurately comparing the achievement level of any one child with that of other children in the class. Additionally, an experienced teacher will be further capable of relating an individual child’s performance level to that of other pupils of the same age that the teacher has experience of teaching. In this sense, teachers “carry around in their heads” their own sets of “internal” norms. These norms provide an essential framework for judging the achievement of pupils and, of course, for deciding which children have learning difficulties and which children do not. However, these norms may not be calibrated to achievement levels nationally. Without the benchmark provided by national norms, the achievement levels of children in curricular areas such as reading, spelling, or mathematics may be under or over-estimated. For example, a child who is in a “high-ability” class might be adjudged as having a serious reading difficulty whereas if the same child were in a class composed mainly of low-ability readers, his or her reading might be regarded as average.
The use of norm-referenced measures also enables teachers to quantify the extent of any particular child’s learning problem. For example, a teacher’s judgement that a child’s reading difficulties are serious could be more precisely specified by reference to a reading test which indicated that the child’s reading level is on a par with the lowest 2% of pupils of his age or class level.

In spite of the serious criticisms levelled at standardised tests and their misuse, it is likely that they will retain an indispensible if diminished role in any future assessment policy (Worthen & Spandel, 1996; Sanders & Horn, 1995).

On the other hand, a criterion-referenced test allows teachers to establish how effectively pupils have mastered the various objectives of the curriculum which are embodied in the test. This aspect of assessment is inextricably linked to the issue of diagnostic assessment which is discussed below. In keeping with trends in curriculum reform in other countries, the proposed new curriculum contains a much more detailed specification of learning objectives than does the present (1971) curriculum. Accordingly, the assessment proposals associated with the new curriculum are likely to recommend a greater degree of formal assessment of how well these learning objectives are being attained by pupils. This development mirrors, albeit to a significantly lesser extent, developments in other countries where “standards of learning” (US) or “attainment targets” (UK) are backed up with related assessment tasks. In some countries the results of these assessment tasks are utilised not only to monitor pupil progress but they are also used for accountability purposes.

**Screening and Placement**

Closely related to the monitoring of pupil progress is the screening and placement aspect of assessment, termed ‘gatekeeping’ by Morison (1992). As mentioned already, formal assessment can identify children who are experiencing learning difficulties and the extent of these difficulties. Such information is important in coming to a decision on the most appropriate type of educational provision for a child (e.g., mainstream class with remedial support, special class, or special
school). Similarly, decisions as to whether a child has made sufficient progress in order that remedial help may be discontinued are often partly informed by results of standardised testing. Standardised test scores sometimes contribute to decisions about grouping of children, although a survey by Carr (1988) suggested that teacher judgement rather than standardised test results form the basis for grouping decisions. It is a matter of speculation as to whether the rise in achievement testing in Irish primary schools since 1988 has had an effect on how teachers group children in classes. In Ireland, the practice of streaming children at primary school level is virtually non-existent. Although Drudy & Lynch (1993) report a relatively high level of streaming and banding in Irish 2nd level schools, there is a dearth of research on the methods employed for allocating students to streams.

**Diagnosing Learning Difficulties and their Causes**
A third purpose of assessment is to provide diagnostic information about pupils. The term diagnosis may have two separate senses. Firstly, it may refer to the identification of particular strengths and weaknesses in the ability and attainments in the learning profiles of children. Remedial teachers often use diagnostic reading and mathematics tests in order to identify deficiencies in children’s knowledge or understanding. Equipped with this information, the remedial teacher can more effectively tailor remedial help to children’s needs. The use of tests in this way for programme planning is not, however, confined to remedial education. Class teachers could also use this type of detailed information regarding what pupils do and do not know as a basis for planning a curriculum programme at the beginning of a term or even throughout the school year. At the end of a school year, such information (summative feedback) may be useful in evaluating whether modifications in curriculum emphasis or teaching approach are needed in the future. This type of end-of-year information may also be helpful in establishing a child’s readiness to transfer to the next class level.

Such detailed information on pupil learning can be gathered through the use of curriculum-based assessments (CBAs) which are, in effect, criterion referenced tests which are explicitly linked to the curriculum being taught. As mentioned previously, there has been a growing
movement in recent years in support of curriculum-based assessment (Sabatino et al., 1993). Proponents of curriculum-based assessment argue that specific information on what each child does or does not know is a valuable input for teachers in deciding what to teach. This type of diagnostic-prescriptive approach currently forms the basis for a number of computer-based learning programs. While a diagnostic-prescriptive approach may be aspired to in a one-to-one setting, the sheer logistics of harnessing such detailed information to guide teaching for each individual pupil in a classroom setting renders the process impractical. Two important and related questions which are fundamental to the role of assessment in teaching arise in this context. The first question is “How much assessment information on individual pupils can teachers actually use in classroom teaching?”. Following on from this, “How much instructional time can be justifiably expended in undertaking these detailed assessments?” As Linn (1992) cautions, “diagnostic testing needs to be based on a better understanding of the realities of teaching”. It is evident from recent experiences in the UK that the answers to these questions are crucial in shaping not only assessment policy but also the entire thrust of classroom teaching.

The diagnostic aspect of assessment also refers to identifying the causes of children’s learning difficulties, a process known as ‘differential diagnosis’. For example, diagnosing a child’s reading problems may involve not only ascertaining what particular aspects of reading are problematical for the child but may also involve trying to establish why the child is experiencing difficulty. Fawcett and Nicolson (1995) propose a three-stage process for screening, diagnosing and remediating reading difficulties. They recommend a comprehensive screening programme of all pupils at age 6 (Stage 1), to be followed by more intensive investigation of those children who are identified as being “at-risk” (Stage 2). The purpose of the more intensive investigation is to permit a differential diagnosis of the child’s difficulties and thereby enable appropriate intervention to be provided (Stage 3). An essential precondition for successfully tackling problems of underachievement in Irish schools is the availability of multi-disciplinary assessment teams such as exist in many other countries, most notably the US. Figure 1 illustrates the manner in which the state of Virginia specifies the
diagnostic and intervention process in order to cater for pupils with learning or behavioural difficulties.

Figure 1: From A Parents Guide to Special Education, Virginia Department of Education, 1994.

Providing Feedback to Teachers, Parents and Pupils
Where a teacher obtains assessment information about pupils, this enhances the teacher’s capacity to provide informative and detailed feedback to parents. In particular, it allows the teacher to underscore her or his evaluations of a child’s progress or difficulties by reference to the “hard” data yielded by assessment instruments. It is not at all clear what is the prevailing practice in this country regarding the disclosure
of results to parents. Pumfrey, (1991) cites the findings of a study in Manchester where 86% of respondents (headteachers) indicated that the results of reading tests are discussed with parents when teachers are concerned with a child’s progress. As mentioned already, this suggests that teachers are invoking test results in support of their judgement. Almost 60% indicated that test results are discussed at the parents’ request. The issue of feedback, of course, raises questions about the most appropriate form of feedback and the level of test result detail which should be disclosed to parents. There are, in my view, definite risks attached to the routine disclosure of actual raw scores or precise standardised scores to parents, especially if this is done without an interpretative gloss by the teacher or school principal. Such results can seriously mislead parents if they are unaware of the margin of error attached to scores or if they have a blind faith in the accuracy and reliability of test results. For example, if a child performs uncharacteristically poorly on a reading test and the result suggests a serious reading problem, should this result be communicated to a parent even where the teacher is convinced that the result is a maverick one? While a test score generally merits serious consideration, it should not be given privileged status above all other indicators; it should not, for example, swamp other sources of evidence such as teacher observation or less formal measures of a child’s performance. However, in spite of this caveat and the potential risks, the Freedom of Information Act 1997 is likely to ensure access for parents to unvarnished assessment results. In any event, the White Paper - Charting our Education Future - had already declared that parents “will be informed of their children’s assessment outcomes”. (p. 29)

Increasingly, teachers must liaise with a range of other professionals such as Department inspectors, psychologists, speech and language therapists, doctors, public health nurses, social workers and solicitors. This frequently necessitates the exchange of information and professional judgements on the intellectual, academic and social development of pupils. These judgements must be capable of being substantiated with evidence, evidence which is often unlocked by an assessment instrument. It is increasingly necessary for teachers to be conversant and comfortable with the assessment vocabulary and
techniques of these related professionals. While this dialogue assumes test literacy as a minimum, the professionalism of the teacher is enhanced where s/he can draw upon the valuable information which can be gleaned from appropriate assessment instruments.

**Contributing to Programme Evaluation and Planning**

It has been mentioned previously that assessment findings can contribute to lesson planning by class teachers and remedial teachers. At school level, test results can, if used appropriately, contribute to programme evaluation and to whole-school planning. Much of the recent research from the School Effectiveness and School Improvement movements clearly highlights the importance of school policy on assessment and evaluation as an important dimension of school effectiveness. Since the early 1970s considerable research interest has centred on what makes some schools more effective than others even when allowances are made for differences in the ability levels of pupils entering the schools. One of the earliest models in the field was that of Edmonds (1979) which set out a five-factor theory of effective schools. One of the factors which he identified as being characteristic of unusually effective schools was “Frequent monitoring of student progress”. Although the original pioneering model of Edmonds has been significantly revised and reconceptualised over the years, numerous other studies conducted in several countries have drawn attention to this factor (Creemers & Reezigt, 1996; Scheerens & Bosker, 1997). Scheerens (1994) has summarised these findings as follows:

*In empirical school effectiveness research assessment at classroom level and the use of records for school management have repeatedly been shown to be positively associated with achievement.*

The Junior School Project undertaken by Mortimore and his colleagues in London is one of the most comprehensive and prominent studies on the characteristics of effective primary schools. According to Mortimore et al., the monitoring of pupil progress was one of the correlates of more effective schools in their study. Similarly, Reynolds et al. (1996), in their overview of British school effectiveness research, list the monitoring of
pupil progress as one of nine factors distinguishing effective schools. Levine (1992), drawing upon research in the United States, points to a similar conclusion. In his book “Results: the key to continuous improvement”, Schmoker (1996) argues that effective collaborative school planning is at the heart of school improvement efforts and this planning needs to be ‘results focused’ and ‘data-driven’. He maintains that schools must take regular account of how well they are achieving their goals and this should involve taking judicious account of relevant data gathered by teachers on pupil learning. Elsewhere, he describes a cyclical process of school improvement as follows:

select a goal; gather meaningful assessment data regularly relative to the goal; then use the data to monitor progress and to identify the areas of performance that represent your best chance for promoting additional improvement. (Schmoker, 1997)

Scheerens (1994) expresses the view that organisational (school) effectiveness is most likely to be improved where an organisation monitors, evaluates and appraises its own performance. This feedback promotes organisational learning and allows for corrective action to be taken whenever this is found to be necessary.

Creemers (1994a) endeavoured to summarise the research findings on the particular aspects of teacher behaviour which promote student achievement. One of the factors which he specified was “Clear goal setting” by the teacher and, linked to this, he included “Evaluating whether the goals are obtained by testing, providing feedback, and corrective instruction”. In a similar vein, Creemers (1994b) makes explicit the positive relationship between goals and evaluation on the one hand and student achievement on the other hand. He observed that:

The incorporation of tests in curricula and textbooks is an aspect of structuring that deserves special attention. Tests can be used to check whether students are achieving as they are expected to, with respect to the goals of the curricular units. The curricula of the Dutch Education and Social Environment Project offered possibilities for teachers to check
Joyce et al. (1993) sifted through research on the large number of school improvement programs which have been attempted in the United States over the past twenty years. They did this with a view to highlighting the characteristics of successful school improvement programs. The successful programs had a focus on specific student learning goals and “all have measured learning outcomes on a formative and summative basis, collecting information about student gains on a regular basis and not leaving evaluation to a yearly examination of post hoc information derived from standardized tests only.” Sparks and Hirsh (1997) contend that “results-driven education” should become a central feature of staff development. They advocate a cyclical process of school improvement whereby the staff in a school analyse relevant data, develop goals, produce action plans, evaluate progress and revise their plans as necessary. Similarly, McGilchrist and Mortimore (1997), in their discussion on school development plans, draw attention to the need for strategies for monitoring and evaluating the implementation of these plans.

In a study of Dutch private and public primary schools Hofman et al. (1996) analysed a range of family and school-related factors which contributed positively to student outcomes. Concluding that school culture had a strong impact on mathematics achievement, they state that “in particular, it is the emphasis in school policy on evaluation and monitoring of pupil performances which show a significant effect on math achievement”. Further Dutch evidence of a positive association between student achievement (language and mathematics) and monitoring of student progress is to be found in Brandsma (1993). Finally, Hofman (1995) also reported that “schools that employ standardized achievement tests for evaluation of the curriculum and registrate pupil achievement on the school level gain better results in arithmetic”.

15
Testing for accountability Purposes

The aforementioned functions of assessment are primarily concerned with obtaining information which supports teachers and schools in making instructional and placement decisions about pupils. However, mention has already been made of the growing demand for assessment information to be made available to agencies or groups outside the school as a means of promoting accountability. The purpose of making assessment information available in this way is to enable a range of interested parties to gauge how schools, teachers and, indeed, the entire education system are performing. Generally, the intention behind creating such public accountability is to create pressure on schools to improve performance and thereby raise educational standards. It has already been pointed out that the rising tide of accountability has been a critical factor in ensuring that the issue of assessment plays a central role in education. In some education systems, assessment policy is overwhelmingly concerned with instructional and placement issues; the accountability aspects of assessment remain distinctly subordinate. In other systems it is evident that accountability considerations are pre-eminent. The following excerpt from the World Bank review “Priorities and Strategies for Education” clearly attaches primacy of importance to the accountability aspect of assessment.

*Performance measures have both policy and pedagogical applications. They can be used to monitor progress toward national educational goals, evaluate the effectiveness and efficiency of specific policies and programs, hold schools accountable for performance of students, select and certify students and provide feedback to teachers about individual students’ needs...They can also be linked with incentives to drive a system toward higher achievement.* (p.101)

Educational policy-makers and administrators throughout the world have readily apprehended the reform potential of accountability assessment. Accordingly, legislation mandating assessment programmes and prescribing procedures for publicising assessment results have been introduced in many countries. The Green Paper on Education strongly embraced this approach, stating that “each school
will report to parents and the local community on its performance and achievements by reference to its School Plan and levels of achievement nationally”. It specifically proposed that the annual written report to be prepared by each school should include the “outcomes of assessment” while also indicating that the report should contain a “summary analysis of relevant statistical data”. These proposals signalled the overt espousal of a “market” philosophy. As mentioned previously, one of the salient characteristics of a market approach is the attempt to generate competitive forces through the creation of “consumer” choice, thereby creating an incentive climate to which schools feel compelled to respond. As part of this approach, schools which are publicly seen to be underperforming will experience pressure to improve or else face the loss of students. This was unambiguously signalled in the Green Paper by the statement that one of the aims behind publishing annual reports “would be to enable parents to make a more informed choice in the selection of schools for their children.”

The White Paper, though shedding the market ideology, retained a firm commitment to accountability and this was explicitly stated to be one of the fundamental principles which undergirded the entire document. In order to promote accountability, it is asserted that “appropriate processes must be operated at various levels, to evaluate the effectiveness of educational policy, provision and outcomes”. There are several notable features in the section dealing with assessment at primary level. Firstly, all schools shall be required to develop an assessment policy as part of the school plan. This is a laudable development and accords well with what has been discussed above regarding the relationship between assessment and school effectiveness. Secondly, it is intended that all pupils will be assessed by their teachers at the end of first and fifth classes for the purpose of determining their learning needs and evaluating their progress. This proposal has been the subject of considerable debate which has mainly revolved around whether it is desirable, let alone necessary, to specify these particular points and, secondly, whether such assessment should be made mandatory. It is unclear from the White Paper whether children at these stages are to be assessed on specially devised assessment tasks as occurs with the National Curriculum in the United
Kingdom or whether teachers can select their own instruments for complying with the assessment requirement. If, as stated, the purpose is simply to monitor progress and detect children with learning difficulties then it is difficult to see why a system of national testing is warranted. A system of national testing where all children would undergo identical assessment would only be necessary if some form of national comparison of schools and classes were being contemplated.

Thirdly, whereas the Green Paper had proposed making assessment results available to a public audience, the White Paper is decidedly more circumspect both in terms of tone and substance. Nevertheless, the advent of accountability testing is signalled where it is proposed that “aggregated assessment outcomes for each school, in accordance with nationally agreed guidelines, will be available on a confidential basis to boards of management, to education boards and to the Department of Education for the purpose of quality assurance, the identification of special learning needs and the targeting of resources.” As the lessons from other countries demonstrate, accountability testing is fraught with difficulty. As assessment is increasingly thrust into an accountability role and it is explicitly mandated that the results will reach a wider audience than the teacher who administered the assessment, assessment becomes progressively more and more “high-stakes”. This means that more is at stake in conducting the assessment than simply finding out how well the child is progressing. High stakes testing occurs where serious consequences attach to the outcomes of testing. For example, the teacher’s professional reputation, prestige or even promotional prospects may be at stake or, as is the case in both the US and the UK, the enrolment levels or even the future viability of a school may depend upon securing good results. The degree to which assessment becomes “high stakes” depends upon the type of audiences to whom the results are to be disclosed and the consequences associated with good or poor performance.

The evidence from other countries where high-stakes testing has operated is well documented and unambiguous; high stakes testing leads teachers to adopt what are termed “test pollution practices” (Haladyna et al., 1991; Madaus & Kelleghan, 1992; Haney et al., 1993;
In other words, the need to achieve good results and to avoid getting poor results is of overriding concern so that some teachers feel pressurised to go to considerable lengths in order to boost results - even if this means that the results are invalid, inflated measures of children’s real achievement levels and even if the achievement of higher scores requires the adoption of teaching approaches which teachers believe are of dubious pedagogical value or even downright anti-educational. When this occurs the original informational value of assessment to the teacher is negatived and, as many have argued, under these circumstances assessment has a deleterious and harmful impact on educational quality.

Several examples of test pollution practices have been identified by Haladyna et al. (1991). One such example is teaching to the test. Teachers may begin to restrict what they teach to those topics in a curricular area which are likely to appear on the test paper, irrespective of their intrinsic educational value. The principal objective is to match the curriculum as closely as possible to the test. After a while, the taught curriculum contracts to conform to the assessed curriculum. In other words, subjects on the curriculum which form part of high stakes testing will, in all likelihood, receive greater attention than subjects which are not assessed in this way. For example, certain areas of the curriculum for which assessment tests are more easily developed (reading, mathematics) are likely to command greater attention from teachers if testing takes place only in these areas and the results of these tests carry significant consequences. Resnik and Resnik (1992) observe that two of the features of accountability testing are that “you get what you assess” and “you do not get what you do not assess”. As Haladyna et al. report, a great deal of time is devoted to preparing for the assessment in order to try and maximise test performance rather than promoting the “official” goals of education.

One familiar example of high stakes testing was the entrance examinations which in the past sometimes determined if children would be admitted to secondary schools. These examinations had a major backwash effect on what was taught and how it was taught in many Sixth Classes in certain parts of the country. Subjects which were
included in the entrance examinations were taught, sometimes at the expense, or even the exclusion, of other subjects, and children were coached in test-taking skills to optimise their test performance. This, of course, also happens in the Leaving Certificate, another high stakes examination, and may give rise to practices such as rote learning of standard essays or “cramming” information without understanding which are of doubtful educational value. Teachers and students may regard many uneducational practices as defensible as long as they produce examination success. This all leads to what is termed “measurement-driven” instruction; the curriculum and instruction are led by what is assessed and how it is assessed, an inversion of the proper relationship. In the worst cases, bad assessment is driving educational practice.

Haladyna et al. also describe other less ethical practices such as ‘bending’ the administration and scoring procedures by, for example, giving more time than the manual recommends or prompting children or even explicitly telling pupils the correct answers. They report that while 8% of teachers in a survey indicated that they had deviated from the administration procedures, more than one third reported that they were unsure if they had followed the procedures exactly. Another practice involves ‘cleaning up’ or ‘doctoring’ test booklets. Also, some teachers encouraged absenteeism of weak pupils on test days. One further practice aimed at artificially boosting scores is grade retention of weaker pupils (holding pupils back a year) so that their test scores are included with those of a younger cohort.

The aim of accountability testing is not solely to provide indicators of how well the pupils are performing. It is also intended that the individuals, groups and agencies who receive the results can draw inferences regarding how well teachers, individual schools and the entire educational system are performing. It is undeniable that several individuals or agencies (e.g. the Department of Education) have a legitimate right to information on how the system is performing at all levels. What is at issue here is whether valid inferences can be drawn about how well individual teachers and schools are performing on the basis of assessment results. Those who support the publication of
test results believe that they can and, additionally, they believe that publication stimulates competition and efficiency. The second issue is whether the publication of test results would do more harm than good, **even if valid inferences about teacher and school performance could be drawn from them.** Before proceeding further it is important to state that while the Green Paper seriously flirted with the idea of open disclosure of test results, the White Paper contains no such proposals. Occasionally, crusaders in the media have tilted at this particular windmill in recent years. The *Irish Independent* (Feb. 20th 1997), for example contained an article which advocated the publication of test results. Basing its argument on an unsubstantiated assertion that “public evaluation of schools, as well as pupils, has proven a huge success” the article implied that a coalition of interests were conspiring to thwart the introduction of enlightened practice.

In fact, contrary to popular perception, there are sound educational reasons for not publishing test results. The essence of these is simple and compelling; valid conclusions about the effectiveness of schools cannot be drawn from test scores. This is recognised even by the World Bank who, as has been shown above, are proponents of accountability testing. In their document “Priorities and Strategies for Education” (1995) they caution:

> Holding schools fully accountable for the results of their students can be difficult as statistically valid distinctions among schools cannot always be made; comparisons of schools may not correct for differences in student intakes, in terms of socioeconomic status, or the social and physical conditions under which the schools operate; school rankings can vary according to the particular outcome measure that is used, and the publication of results can lead to schools that are perceived to be doing well attracting students of high ability while those that are perceived to be doing badly, but may in fact be doing well for the intake and conditions that they have, may be avoided by such students. (p. 101)

Similar difficulties are recognised by Sammons et al. (1995), based on their involvement in the Junior School Project on school effectiveness:
“Any analyses of schools’ effects upon students’ attainment which do not make adequate control for the impact of such socio-cultural factors in addition to prior attainment are likely to favour schools with more socially advantaged intakes whilst making schools with disadvantaged intakes appear to be less effective than they are in reality. This conclusion is clearly of relevance to the ongoing debate in the UK and elsewhere about the merits of the publication of league tables of raw and value-added tables of schools’ examination and test results as a means of promoting greater accountability of schools to consumers (parents and pupils).

Finally, Lawton (1994) is uncompromising:

To encourage parents to choose schools on the basis of published examination or test results - as threatened by the 1988 Education Reform Act (ERA) - is either extremely naive or blatantly dishonest.

Even if it were scientifically defensible to draw conclusions about a school’s effectiveness from its test scores, the question would still remain as to whether publication would, as advocates claim, improve the quality of educational provision. Whitty (1997) is dismissive of these claims, pointing out that schools which are perceived to be more effective often engage in “cream skimming”, thereby reinforcing their market dominance. Schools which are perceived to be performing poorly, irrespective of their actual effectiveness, are destined to take mainly those pupils who are without choice. This results in an effective “ghettoisation” of these schools, creating a two tier system, which radically undermines their capacity to function effectively.

Several writers clearly describe the impact of high-stakes testing on the attitudes of both teachers and pupils. Haladyna et al. (1991) report a “growing fear and loathing that teachers and administrators feel towards standardized testing” in the United States. They attribute these attitudes to the high-stakes use of test results.

The lessons from other countries serve as a salutary reminder of the harmful effects which can stem from ideologically-inspired remedies to problems which are very different to the problems which exist in this
country. In conclusion, it is worth bearing in mind the following scathing quotation from Shavelson et al. (1992) which reflects on the US experience of accountability assessment:

_In the final analysis, we suspect that this nation may be placing far too much emphasis on accountability to achieve its reform agenda. Judging from past experience, those states with the strongest and most technically sound accountability systems have not achieved their desired reforms. Perhaps what is needed is far less account taking and far greater consideration and resources given to teaching and learning..._

_An increased emphasis on, and bully-pulpit use of high-stakes testing may, paradoxically have a deleterious effect on U.S. education. Tactical political “fixes” are not what is needed. Rather, we believe that a long-term, realistic approach to assessment...is._
CHAPTER II

Approaches to Assessment

There are very few in the educational community who would disagree with the view of the Review Body on the Primary Curriculum (1990) that assessment is an integral part of the teaching and learning process and there would be widespread support from teachers for the development in Ireland of what was described in Chapter One as a coherent, balanced and comprehensive approach to assessment. This chapter discusses the value of good formative assessment. It examines the value and limitations of traditional formative assessment which is followed by a description of formative assessment measures which have been recently developed or which are in the process of being developed. Finally, an approach to assessment - referred to as dynamic assessment - which highlights the role of supportive social contexts in learning, instruction and assessment is outlined.

Traditional Formative Assessment

The main function of formative assessment is to facilitate the teaching/learning process. Unstructured teacher observation provides the teacher with information on a day to day basis on how children are benefitting from the teaching/learning situations they experience. The information provided from observation is complemented with other forms of assessment such as standardised testing, in order to indicate when further diagnostic testing is appropriate.

Formative assessment, whether formal or informal, can be described as prescriptive. Prescription in this sense means the identification of optimum conditions for learning, which teaching and learning strategies are most appropriate and how to facilitate the performance of those predicted to experience particular difficulties.

Virtually all assessment, whether it is gathered informally and unsystematically or formally and systematically, has prescriptive elements in varying degrees but the emphasis here is on the use of formal and systematic assessment in helping teachers to make prescriptive teaching judgements.
Standard Assessment

One of the goals of the standardised testing movement was to develop tests which would have prescriptive features. Standardised norm-referenced tests, for instance, show teachers the ability range of pupils within classes with a high degree of reliability while criterion-referenced standardised tests may check how well a teaching approach has worked in helping children to reach certain curricular objectives. Irish teachers are increasingly using standardised norm-referenced tests in the areas of reading, spelling and maths. There is no evidence of the widespread use of standardised assessment in other areas of the curriculum.

Diagnostic Assessment

Diagnostic assessment is probably the most prescriptive form of traditional formative assessment in that it typically points to the next steps in instruction and specifies instructional needs. The identification of instructional needs generally evolves from in-depth assessment of individual pupils. In Ireland diagnostic testing tends to be used by remedial teachers mainly in the areas of literacy and mathematics.

Current Thinking about Formative Assessment

Standardised Assessment

One of the outcomes of the growth in testing in countries like the United States of America is that quality of assessment and of its underlying theories has come under scrutiny (Gipps 1993). Educationalists in many countries have expressed concerns that traditional standardised assessment (and, indeed, teacher-devised tests) has tended to focus on the products of rote-learning rather than on higher-level thinking skills. This has led to a move away from and towards the blending of assessment and instruction (Griffin and Nix 1991). Denvir (1990) holds that rote-learning techniques which are encouraged by traditional assessment are no longer helpful to children who are expected to be flexible, adaptive and able to change in response to our rapidly developing and complex technological society. This view has led to the development of newer assessment techniques which purport to help
teachers to plan activities which address the real issues which confront young learners. In general the shift has been from paper-and-pencil tests to assessment of performance-based tasks which are regarded as authentic demonstrations of what has been learned.

**Diagnostic Testing**

The aim of diagnostic assessment has always been the analysis of learning or the lack of learning which is taking place. This analysis should provide information about the pupil’s strengths and weaknesses with a view to leading directly to recommendations regarding such learning. There are, however, concerns about traditional diagnostic assessment which tends to assume that learning can be dissected into subskills which can be measured. Instruction is then focused on subskills which are practiced in isolation. This approach is well known in diagnostic assessment of reading. Diagnostic tests typically test subskills such as visual memory, visual discrimination, visual motor integration, gross and fine motor coordination and auditory discrimination. Pupils are then given practice on items designed to sharpen those skills with the hope that such training will result in improved reading. Brown, Campione (1986) have labelled this step from diagnosis to intervention the ‘leap instruction’ phenomenon and argue that the action is seldom easy to defend. Adams (1990) agrees and states “despite the energy invested in such endeavours and despite the fact that many of the activities involved may be good for children in other ways they seem not to produce any measurable pay off in learning to read”.

The main problem with traditional assessment - particularly diagnostic assessment - is the problem of translating test results into suggestions for remediation (Campione 1996). Accurate assessment may well indicate the content of a teaching programme but it cannot suggest how the content should be taught unless it is linked with some theory of how children learn.

**New Approaches to Formative Assessment**

There is a move towards the use of teaching tools in the gathering of assessment information. The following four examples are detailed in Chapter 3.
• Teacher-pupil conferences;
• Projects;
• Portfolios;
• Structured performance tasks.

Other recent developments which could gain momentum in the near future (Griffin, Nix 1991) are described briefly here.

Adaptive Testing

Adaptive testing could be described as a computer application of classroom questions and answers. Test items are selected according to the ability of the student. If an answer is correct the student can select a more difficult item while if the answer is incorrect an easier item is selected. The process is then repeated until the difficulty level of the items matches the ability level of the student. This type of testing fits well with Vygotsky’s theory of the “Zone of Proximal Development” (see below). It also provides a very close link between instruction and assessment because it allows for the development of banks of items which can be used by pupils at their appropriate ability levels.

Adaptive testing appears to have great potential for the provision of useful assessment information and for the development of helpful teaching materials. Testing of this nature is virtually non-existent in Ireland, but many Irish teachers would be familiar with texts which have the same basic principle as adaptive tests. For example, some Irish teachers would be familiar with the Neale Analysis of Reading Ability where children are asked to read passages of increasing standards of difficulty and are then given a test score in the form of a reading age. In adaptive testing a test score is not used but the performance of the pupil is described in terms of how s/he performed at each standard. If a series of books were established for each standard which increased in difficulty it would then be possible to identify a pupil’s reading by a type of book. It would also be possible to assess a pupil’s ability at each standard at more than two levels: - (right) wrong or pass (fail). For instance books which are used for the teaching of reading are often defined as being at three levels i.e. “independent”, “instructional” and frustration”. If this approach is used a report of a pupil’s reading ability could be stated as follows “She reads books at Standard 1 at the
independent level, or she reads books at Standard 2 at the instructional level ...”

If a technique based on item response or latent trait theory were used the standards could be expressed as a scale. This has been done by the College Entrance Examination Board in New York with a test called Degrees of Reading Power. The reading material in this test ranges in difficulty from junior primary school to graduate school. The range of difficulty is expressed in Degrees of Reading Power Units (DRP) - simple reading material would have a DRP rating of 30 while difficult reading material would have a DRP of 85. Three levels of performance (independent, instructional and frustration) are assessed. In this system a typical report would be: “The pupil reads material of DRP 35 (or lower) at the independent level, material of DRP 46 at the instructional level and reading material of DRP 58 (or higher) at the frustration level”.

A similar test - the Test of Reading Comprehension (TORCH) (Mossenen et al 1987) - is widely used in Australia. This type of testing could be used in any area of the curriculum if item banks were developed in the particular curriculum area. Adaptive testing uses only those test items or tasks with a level of difficulty which is approximately equal to the level with which the pupil can cope because test items are selected according to the level of ability of the pupil through a trial and error process. If the pupil gave a correct answer a more difficult item is selected while if an incorrect answer is given an easier item is selected.

If this type of item banking which is used in adaptive testing were developed in Ireland it would have benefits for teachers in providing material at the instructional level. Reading material is an obvious example but researchers such as Choppin (1968), Wright Stone (1979), Masters (1984), Popham (1978) and Griffin et al (1987) have shown how banks of appropriate items can be established for all areas of the curriculum. However, the quality of the items in the item banks appears to be crucial if teachers are to become interested in using them. We must learn from the Australian experience where there was teacher resistance to the use of item banks for testing when the test items were predominantly of a multiple choice nature (Griffin 1991). Materials need to be properly developed and disseminated if teacher resistance to new
assessment approaches is to be overcome.

**Item Response Theory (IRT)**

Item response theory analyses the relationship between the ability of a student, the difficulty of a task and the probability of the student successfully performing the task. It can be used to locate items and students on a continuum of achievement such as a reading achievement scale.

**Partial Credit Model**

The partial credit model can be used as an application of IRT which allows for more than just a right/wrong scoring procedure. Many Irish teachers would be familiar with partial-credit models used in the teaching of reading where books at different levels can be described as being at the “independent”, the “instructional” or the “frustration” level for different pupils. This model can be used as a resource for teachers if they have access to a comprehensive set of graded books because they can discover which level of books are suitable at the “instructional” level. Again, as with adaptive testing, the notion of an “instructional” level fits well with Vygotsky’s “Zone of Proximal Development”.

**Graded Assessment**

A graded assessment system is very similar to adaptive testing where students perform tasks that progressively become more difficult and require more sophisticated skills. The students are then tested at the appropriate levels and the results are interpreted in terms of levels reached.

**Analytical Assessment**

Analytical assessment identifies the strengths as well as the weaknesses of pupils. It differs from the common view of diagnostic assessment that diagnosis is the assessment of errors or deficits. It endeavours to describe how children should be taught because it links assessment with a theory of learning. Glaser and Nitko (1971) describe analytical assessment as having three elements:
the extent to which the student has already acquired what is to be learned;
the extent to which the student has the necessary prerequisites;
the characteristics of the way in which the student learns which interact with the available instructional alternatives.

Instructional Assessment

Glaser and Nitko’s model of analytical assessment is an example of assessment which attempts to take into account a theory of how children think and learn. Other attempts to base assessment on a theory of learning include Gagne and Briggs (1974) model of instructional design which they outlined in “Principles of Instructional Design” which describes how achievement can be assessed in terms of general indicators of success.

More recently attempts have been made to devise assessment which is inspired by Vygotsky’s theory of how learners make progress. A range of techniques which focus on the process of learning as well as its product is now called “dynamic assessment”. Vygotsky summed up his own position in relation to assessment by giving the following example:

“Suppose I investigate two children upon entrance to school, both of whom are twelve years of age chronologically and eight years old in terms of mental development. Can I say that they are the same age mentally? Of course. What does this mean? It means that they can independently deal with tasks up to the degree of difficulty that has been standardised for the eight-year-old level. If I stop at this point people would imagine that the subsequent course of development and of school learning of these children will be the same because it depends on their intellect. Now imagine that I do not terminate my study at this point but only begin it. Suppose I show that these children have various ways of dealing with a task - that children solve the problem with my assistance. Under these circumstances it turns out that the first child can deal with problems up to a twelve-year-old’s level; the second up to a nine-year-old’s. Now are these children mentally the same?

“When it was first shown that the capability of children with equal levels of mental development to learn under a teacher’s guidance varied to a high degree, it became apparent that those children were not mentally the same
and that the subsequent course of their learning would obviously be
different. This difference between twelve and eight or between nine and
eight is what we call the zone of proximal development” (Vygotsky, 1978:
85-6).

Dynamic Assessment

Recent research in the United States of America has centred on novel
approaches to assessment which they claim will have positive effects on
instruction. The generic term for these new approaches is dynamic
assessment and its defining feature is an emphasis on process rather
than product information. The general orientation of dynamic
assessment is either explicitly or tacitly inspired by the work of
Vygotsky - particularly by his concept of the Zone of Proximal
Development (ZPD). Vygotsky defined the ZPD as the distance between
a child’s actual development level as determined by independent
problem solving and the higher level of potential development as
determined through problem solving under adult guidance or in
collaboration with more capable peers (Vygotsky 1978: 86).

This type of assessment highlights the role of supportive social contexts
for learning and their place in both instruction and assessment. It also
emphasises the role of higher order skills and how they should be
explicitly taught and assessed.

Campione (1996) and his fellow researchers express concerns about
traditional instruction and assessment. They posit the view that
traditional assessment has influenced instruction negatively in two
ways. Firstly, they claim that there has been a style of teaching that
follows what Putnam (1987) calls a curriculum script which has preset
aims and objectives. Teaching to a curriculum script does not take
account of individual pupil progress and does not allow pupils to
become active learners. Secondly, traditional assessment is seen as
leading to a teaching of sub-skills and lower-order skills rather than of
global strategies and higher-order skills. It is worth noting that similar
concerns have been expressed in Ireland. For instance in their analysis
of the International Association for the Evaluation of Educational
Achievements major international study of reading literacy, Martin and
Morgan (1994) made the following observation of the teaching of
reading in Irish schools:
“Further attention needs to be given to the strong emphasis on basic skills to the neglect of higher-order thinking abilities. Related to this is the need for instructional activities that enhance and not merely test comprehension. It is interesting to note that the integration of dynamic assessment and instruction has led to the development of a programme which does attempt to teach the higher order skill of comprehension explicitly and, apparently, successfully. Palinscar and Brown (1984) developed a technique of teaching comprehension of reading which is described as reciprocal teaching. In this form of teaching the teacher models important strategies by “thinking aloud” and the pupils gradually assume the role of teacher with the guidance of the “real” teacher. Palinscar and Brown found that after several weeks of this kind of direct comprehension instruction that all the pupils in the study improved in answering comprehension. They also found that the pupils carried over their new comprehension strategies to other academic subjects (Becoming a Nation of Readers 1990: p72).

It was in response to the concerns discussed above that investigators turned to dynamic assessment which emphasises individuals’ potential for change in the area of learning higher order skills. Meadows (1993) describes the typical dynamic assessment as a measurement of the ZPD.

Dynamic assessment assesses at two levels. The lower of the developmental levels is equivalent to what traditional educational tests measure - what the child can do independently, the higher is what the child can do with such assistance as demonstrations, prompts or leading questions. The lower level indicates what cognitive functioning the child has already mastered; the upper lever (achieved with assistance) suggests what functions are not yet mature but are in the process of maturation. “What a child can do with assistance today she will be able to do by herself tomorrow (Vygotsky 1978 a: 87). The optimum target for instruction is between the two developmental levels because there is little profit from teaching below the bottom level (the child’s functioning here is already mature) or from teaching aimed at above the top level (the difference from the child’s present functioning may be too great).

Some approaches standardise the amount of assistance which is given between levels while others use clinical procedures. Campione suggests that dynamic assessment is more valuable in major curriculum areas
such as reading or maths rather than in domain-general areas such as intelligence. He claims that when specific curricular areas are assessed in this way it is relatively easy to develop appropriate instructional packages which avoid the problem of transfer of learning.

Concluding Comments

The assessment procedures which were described in this chapter would appear to have value in identifying for teachers the optimum conditions for learning. They also help in the provision of appropriate materials and contexts for children to learn through a multiplicity of strategies.

There is, however, a need for the development of a broad array of appropriate material to assist teachers in implementing high-quality assessment and instructional procedures and for the dissemination of such materials to schools. There is also a need for the provision of a comprehensive programme of pre-service and in-service education in the area of assessment in order to facilitate teachers and to equip them with the concepts and skills of all aspects of assessment so that their pupils can be assisted in learning more effectively.
CHAPTER III

Curriculum Profiles

Introduction

The past decade has seen the emergence of curriculum profiles in countries as far apart as Australia, Great Britain and the United States. The profiles — cumulative records of pupils’ achievement in one or more areas of the curriculum — enable teachers to make reliable judgements about their pupils’ achievements in relation to key curriculum objectives, and to record these judgements in summary form. Here in Ireland, the value of maintaining a comprehensive and continuous record of each pupil’s achievement has been highlighted in policy statements on assessment (e.g., National Council for Curriculum and Assessment [NCCA], 1990, 1993, Irish National Teachers’ Organisation [INTO], 1996), and curriculum profiles have been identified as being useful in this regard (O’Leary, Shiel & Forde, 1995).

In 1995, the Educational Research Centre began work on the development of curriculum profiles. The intention was to develop a tool that teachers could use to assist them in summarising and recording their pupils’ achievements towards the end of each school year. It was envisaged that teachers’ own formal and informal classroom assessments would contribute significantly to this process. To date, development work has been undertaken in three areas: English, Mathematics and Music.

The purpose of this chapter is to acquaint readers with curriculum profiles in general, and the work of the Educational Research Centre in this area in particular. First, the broad contexts — both national and international — in which curriculum profiles have emerged are described. Then, the main elements of profiles are outlined with reference to systems currently in use in Australia and Britain. In the third section, current work on the development of curriculum profiles at the Centre is described. The chapter concludes by considering ways in which the use of profiles might be linked to the implementation of the revised curriculum for primary schools.
Why Curriculum Profiles?

The work of the Educational Research Centre in developing curriculum profiles has been guided by recent developments in assessment in Ireland and in other countries.

The Irish Context

Since the late 1980s, Irish educators have been examining ways to improve the assessment of pupils in primary schools. In 1990, the Report of the Review Body on the Primary Curriculum (NCCA, 1990) introduced the term *pupil profile* in the context of recording pupils’ achievement in different subjects in the curriculum when it recommended that:

- a pupil profile should be entered on a record card to be developed by the Department of Education
- the items on the profile record card should correspond to areas of the curriculum
- the entries on the card should be in accordance with (i) the informal assessments made by the teacher of the student’s mastery of key objectives; and (ii) the results of formal tests
- the profile record card should encompass the earlier years of primary schooling as well as the senior classes
- a report based on the profile card should provide parents with useful assessment information
- a balance should be maintained between providing a comprehensive profile and making the profile easy to interpret
- standardised summary marks, grades or comments should be provided that would indicate a pupil’s overall level of achievement in the subjects on the curriculum.

In considering ways in which profile summary marks or grades might be standardised, the Review Body recommended the use of a combination of (a) standardised test results; (b) group moderation procedures (in which agreement on meaning of scores would be reached through a consensus process involving teachers); and (c) ‘verbal descriptions of prototypes’ (p. 85) corresponding to different
levels of achievement within a subject.

Clearly, the Review Body envisioned a comprehensive system for assessing, recording and reporting on pupils’ achievement, and pointed to some of the issues that would need to be taken into account in developing such a system. In 1993, an assessment subcommittee of the NCCA essentially endorsed the Review Body’s conclusions when it proposed that:

- A new standardised pupil profile [record card] would be designed to provide a common format for recording in all schools.
- Reports on pupil performance would be based on the pupil profile and would be recorded on a pupil report card to be issued to parents.
- Categories within the pupil profile would correspond with aspects of the primary school curriculum; subject levels and grades achieved would be defined and complemented by comments.
- Information on social and emotional development would be recorded.
- These assessment records would not be used for accountability purposes.

(NCCA, 1993, p. 18)

Some two years later, the Government White Paper on Education (Ireland, 1995) stated that assessment should be viewed as ‘an integral part of the teaching and learning process in every classroom’ (p. 29), and proposed that ‘assessment data for each student would be recorded on standard student profile cards’ (p. 29). The value of combining teachers’ informal assessments with the ‘judicious use of standardised tests’ was also mentioned.

Reaction to proposals for the development and use of profiles in these reports and policy documents has been largely positive. For example, in its response to the White Paper, the INTO pointed to the usefulness of formative (classroom-based) assessments in defining pupils’ learning needs, and acknowledged the benefits of ‘profiling individual children, using relevant descriptors of achievement’ (INTO, 1996, p.12). However, few educators have taken up the Review Body’s challenge to
investigate ways in which the grades or marks that would be entered on school record cards might be defined or standardised.

The need to develop a shared understanding of the meaning of grades or marks becomes apparent when one considers the difficulties that arose in implementing the Department of Education’s Pupil Record System. The system, which was introduced in 1967, required teachers of pupils in the senior classes to grade the pupils’ achievement in each subject area, using their own assessments of the pupils’ work, and to record this information in the form of a grade (lag, cuíosach, maith, an-mhaith). It was intended that the record card would follow pupils to their second-level schools, but this did not occur in practice. The record system became defunct because of ‘difficulty in comparing ratings across teachers and schools and subjects’ (NCCA, 1990, p. 82).

In order to gain some insights into how grades, marks and comments might be defined more systematically, and in a manner that would be useful to schools, teachers, parents and pupils, we turned to the international literature on assessment.

The International Context

In countries in which standardised tests have been used to monitor the achievement of schools and larger administrative units, there has been a growing awareness that such tests provide information about a limited range of pupil learning outcomes, and may exercise a disproportionate and sometimes negative influence on curricula (e.g., Darling-Hammond, 1994; Gipps and Murphy, 1994). One solution that has been proposed is the broader use of performance assessments. These assessments call on teachers to observe, interpret and record pupils’ achievements in the context of ongoing classroom activities. They focus both on the processes of learning (for example, solving problems, working on projects, composing stories, or creating works of art) and on completed products (for example, solutions to problems, completed projects, writing samples, completed pictures). Performance assessments are deemed to be more valid than traditional assessments because they reflect a closer alignment between curriculum, teaching
and assessment, and more ‘authentic’ because the performances they call for are more typical of, and relevant to, classroom life (Valencia, Hiebert & Afflerbach, 1994). Finally, they often resemble the informal assessment activities in which teachers engage on a daily basis such as correcting homework and classwork and asking questions to check and extend understanding (Nitko, 1995).

Among the teaching and assessment activities that can be described as performance assessments are projects, teacher-pupil conferences, portfolios (work samples), and structured performance tasks. Projects are extended pieces of work completed over time that involve pupils in collecting, organising, evaluating and presenting information, and allow for the integration of different elements of the curriculum (Forster & Masters, 1996). Teacher-pupil conferences are structured discussions involving a teacher and one or more pupils that focus on a specific topic or piece of work, whether ongoing or completed (Graves, 1983, 1994). Conferences are particularly suited to aspects of the curriculum that involve creativity such as writing, composing music or developing a work of art. Portfolios are collections of pupils’ work assembled over time (Tierney, Carter & Desai, 1991). They can be used in English and Irish, Mathematics, Social, Environmental and Scientific Education (SESE) and Arts Education, and can include both work in progress and finished products. Structured performance tasks are specific tasks that teachers administer for the purpose of obtaining assessment information. They include asking pupils to read or write a text without support, to identify and solve problems in Mathematics, or to perform a series of movements in Physical Education. Their purpose is to determine if pupils have achieved defined (criterion) levels of performance.

Curriculum profiles have been developed in several countries to enable teachers to summarise in a systematic way the assessment information they gather about pupils throughout the school year, including the results of any performance assessments that may have been administered. While these profiles have emerged in a range of socio-political contexts, and are based on curricula with different underlying philosophies, they share the goal of providing teachers with a
systematic approach to summarising and recording pupils’ achievement.

**Merging Contexts**

In summary, there is a broad consensus in the Irish context that cumulative records of achievement for each pupil should be maintained by schools, and that these records should form the basis of reports to parents. Moreover, it is clear that these cumulative records should reflect the achievement of pupils in relation to key objectives in different subject areas. As consensus on the way forward has been emerging here in Ireland, curriculum profiles have been developed in several countries to assist teachers in defining the meanings of summary scores or grades in a way that takes into account the range of formal and informal assessments they have administered throughout the school year. The relationship between formal and informal assessments, curriculum profiles and other aspects of recording and reporting is summarised in Figure 1 below.

**FIGURE 1**

Links between Formal and Informal Assessments, Curriculum Profiles, School Record Cards, and Pupil Report Cards

[Diagram of the relationship between Formal Assessments, Curriculum Profiles, Cumulative School Record Card, and Pupil Report Card (to be issued to parents/guardians).]
Curriculum profiles based on the curriculum taught in Irish primary schools could go a considerable way towards meeting the reporting and recording needs of schools, teachers and parents as outlined in the Report of the Review Body on the Primary Curriculum, and elsewhere.

What Are Curriculum Profiles?
Curriculum profiles are records of achievement in one or more areas of the curriculum (often defined as subjects) that are based on teacher judgements. In implementing a curriculum profile, the teacher reflects on and interprets a pupil’s performance in relevant assessment contexts and records a judgement regarding whether or not the pupil has achieved important curriculum outcomes (objectives).

Curriculum profiles have been developed and are in use in several national, state and local educational systems. Throughout the remainder of this section, three of these profiles are described in detail: the Australian National Profiles (Australian Education Council, 1994), National Curriculum Assessment (NCA) in England and Wales (Great Britain: Schools Curriculum and Assessment Authority, 1994), and the Victoria Profiles (Victoria Department of School Education, 1991; Rowe and Hill, 1996). The two national systems cover most subject areas including Art, Music and Physical Education, while Victoria Profiles cover English and Mathematics only. Within subject profiles, separate profiles are generally provided for different subject strands. For example, English is generally divided into three strands: oral language, reading and writing.

Most profiles have four central elements: indicators of achievement, levels of achievement, assessment contexts, and recording/reporting frameworks.

Indicators of Achievement
Indicators of achievement are outcome statements that describe student achievement, and are generally based on important curriculum content. Examples of indicators of achievement in English reading include:
Matches known clusters of letters to clusters in unknown words
(‘Indicator’ from Band B of the Victoria English Profiles, Victoria Department of School Education, 1991);

Uses picture and context cues, words recognised on sight and phonic cues in reading. (‘Statement of attainment’ from Level 2 of National Curriculum Assessment in England and Wales, Great Britain, Schools Examinations and and Assessment Council, 1993);

Uses basic strategies for interpreting written and visual texts and maintains continuity in understanding when meaning is disrupted. (‘Outcome’ from Level 2 of the Australian National Profiles, Australian Education Council, 1994).

Indicators such as these are generally difficult to interpret when they stand alone. Some profiling systems provide additional help with the meaning of indicators. In the Australian National Profiles, up to 12 pointers or instances in which an outcome may be exhibited, are provided to assist with the interpretation of individual indicators. In NCA in England and Wales, the meanings of statements of attainment in the core subjects (English, Mathematics and Science) are linked to (and therefore defined by) the performance of pupils on standard assessment tasks or tests (see below). In the case of the Victoria Profiles, no specific help with the interpretation of indicators is provided. Instead, it is assumed that teachers’ familiarity with the curricula in English and Mathematics will guide their interpretation of the indicators.

Levels of Achievement

Levels of achievement (also called achievement bands) are sets of indicators that have been grouped together to provide a more general description of achievement than is offered by individual indicators. Levels are usually arranged hierarchically to reflect development in the skills and knowledge that are acquired by students as they become more proficient in a subject or subject strand. For example, there are eight levels spanning Grades 1-10 (ages 6-16) in each subject profile in
the Australian National Profiles. Level 1, the lowest level, is the easiest to achieve, while Level 8 is the most difficult. The Victoria Profiles contain 9 achievement bands (A to I) in each subject, while NCA in England and Wales currently has 8 levels of achievement per subject. The arrangement of indicators into levels of increasing complexity in these systems enables schools and teachers to monitor a pupil’s achievement of the curriculum at different points during his/her education.

Table 1 illustrates the content of Bands B and C in the Victoria English Profiles—Reading (Victoria Department of School Education, 1991). It has been established that each band in the profiles is more difficult to achieve than the previous band (see Rowe & Hill, 1996). Therefore, Band C is more difficult to achieve than Band B. In rating a pupil’s achievement, the teacher identifies the highest band in which most or all indicators have been achieved, drawing on evidence from a range of classroom assessment contexts (see next section). This corresponds to the level of achievement at which the pupil can function independently. Teachers may also identify additional bands at which the pupil is developing. These are higher bands in which only some indicators have been achieved. In such a scheme, a pupil may be judged to have achieved Band B, and to be developing at Band C if most of the indicators in Band B, but only some of those in Band C, have been achieved. The procedure for rating a pupil’s achievement on the Australian National Profiles is very similar.
### Table 1
**Victoria English Profiles**
**Reading: Levels B and C**

**Reading Band B**

**Reading Strategies**
- Takes risks while reading
- “Read” books with simple repetitive language patterns
- Uses pictures for clues to meaning of text
- Asks others for help with meaning and pronunciation of words
- Consistently reads familiar words and interprets symbols within a text
- Predicts words
- Matches known clusters of letters to clusters in unknown words
- Uses knowledge of words in the environment when “reading” and “writing”
- Recognises base words within other words
- Names basic parts of a book
- Makes a second attempt at a word if it doesn’t sound right

**Responses**
- Selects own books to “read”
- Describes connections among events in texts
- Writes, role plays and/or draws in response to a story or other form of writing (e.g., poem, message)
- Creates ending when the text is left unfinished
- Recounts parts of text in writing, drama or artwork
- Retells using language expressions from reading sources
- Retells with appropriate sequence.

**Reading Band C**

**Reading Strategies**
- Reads a paragraph or sentence to establish meaning
- Uses context as a basis for predicting meaning of unfamiliar words
- Reads aloud showing understanding of purpose of punctuation marks
- Uses picture clues to make appropriate responses for unknown words
- Uses pictures to help read a text
- Finds where another reader is up to in reading a passage

**Responses**
- Writing and artwork reflect understanding of text
- Retells, discusses and expresses opinions on literature, and reads further
- Recalls events and characters spontaneously from text

**Interests and Attitudes**
- Seeks recommendations for books to read
- Chooses more than one type of book
- Chooses to read when given free choice
- Concentrates on reading for lengthy periods
In National Curriculum Assessment in England and Wales, indicators of achievement in each subject strand are organised as level statements, which increase in complexity from one level to the next. The arrangement of indicators in this manner is a departure from the earlier practice of providing detailed checklists of statements of attainment. Table 2 provides the first three level statements or bands.

**Table 2**

National Curriculum Assessment (England and Wales)  
English Reading — Level Statements  
Levels 1-3

**Level 1**
In reading aloud simple texts, pupils recognise familiar words accurately and easily. They use their knowledge of the alphabet and of sound-symbol relationships in order to read words and establish meaning. In these activities, they sometimes require support. They express their responses to poems and stories by identifying aspects they like.

**Level 2**
Pupils’ reading of simple texts is generally accurate and shows understanding. They express opinions about major events or ideas in stories, poems and non-fiction. They use more than one strategy (phonic, graphic, syntactic, contextual) in reading unfamiliar words to establish meaning.

**Level 3**
Pupils read a range of texts aloud fluently and accurately. They read unfamiliar words independently, using more than one strategy (phonic, graphic, syntactic and contextual) to establish meaning. In responding to fiction and non-fiction, they show understanding of the main points, and express preferences. They use their knowledge of the alphabet to locate books and find information.
The NCA, therefore, has two approaches to summarising a pupil’s achievement rather than one:

- The first approach (teacher assessments) involves the teacher in identifying the highest level that the pupil has achieved in each subject/subject strand, drawing on evidence of the pupil’s performance on classroom assessments. This ‘best fit’ approach is similar to that used in the two Australian systems, although written evidence of the pupil’s performance over time may be required in some schools and Local Education Authorities.

- The second approach (standard tasks) involves the administration of partly standardised performance tasks and tests by the teacher in the core subjects of English, Mathematics and Science, again in order to identify the highest level that each pupil has achieved. A pupil’s level of achievement in each subject strand is linked to his/her performance on the relevant standard tasks. In this approach, teacher judgements play a relatively minor role, particularly as pupils move beyond the junior classes levels, and more formal paper-and-pencil tests are administered.

In some subject strands, such as English reading, both teacher assessments and standard tasks are administered and the outcomes are reported. In others, such as oral language and Music, only teacher assessments are conducted and reported.

Assessment Contexts

Assessment contexts refer to situations in which the evidence to be considered in rating pupils’ achievement may be obtained. These range from teachers’ observations during teaching and learning activities, to relatively unstructured performance tasks (such as conferences, projects and portfolios) to structured tasks and paper-and-pencil tests. The link between performance tasks and the actual levels that pupils achieve can vary. For example, users of the Victoria English Reading Profile wishing to determine whether or not a pupil has achieved Band B in English, are advised to consider the pupil’s performance in the following contexts:
While teachers are provided with examples of the assessment information that can be generated in each specific context, performance in these contexts is not linked directly to the profile bands. Instead, as indicated earlier, the teacher must make a ‘best fit’ judgement about a pupil’s level of achievement based on the available evidence. Similar approaches operate in relation to the Australian National Profiles and the teacher assessment strand of NCA in England and Wales although, in the case of the latter, teachers may be expected to have available for inspection any assessment information they drew upon in making their judgements. The requirement to administer standard tasks and tests is not unique to the standard tasks strand of NCA in England and Wales. The procedure exists in modified form in Northern Ireland and Scotland. In Northern Ireland, teachers are required to administer assessment units in English (reading and writing), Mathematics (number and one other area), and, where relevant, Irish (reading and writing) to pupils in Years 4 and 7. The results are used as evidence for the profile levels that teachers assign to pupils, and scoring may be subject to audit (D’Arcy, 1994; Northern Ireland Council for the Curriculum, Examinations and Assessment, 1996). In Scotland, test units in English and Mathematics are available to teachers who wish to confirm the levels of achievement they assign to pupils (Harlen & Malcolm, 1994).

Recording/Reporting Frameworks

The grades or scores achieved by pupils on subject profiles may be recorded, and reported to other teachers and to parents in a variety of ways. Profile record cards range from the simple, where the actual (raw)
levels achieved by a pupil are reported for each subject/subject strand, to the complex, where normative information (e.g., standardised level scores) and descriptive comments based on the profile are also included. In a comprehensive guide accompanying the Australian National Profiles, for example, four options for reporting to other teachers, and three for reporting to parents are provided (see McLean & Campagna-Wildash, 1994). The options include reporting the highest level achieved by a pupil in each subject strand, reporting the levels at which the pupil is currently working on, and/or providing descriptive comments. In general, these comments point to a pupil’s strengths and weaknesses by referring to specific indicators in the profiles. A number of the reporting frameworks accompanying the Victoria English Profiles (e.g., Griffin & Nix, 1991) emphasise the value of providing parents with a visual representation of their pupils’ achievement that illustrates the developmental nature of learning. Elsewhere, Griffin, Smith and Burrill (1995) show how profile level scores can be interpreted and reported with reference to grade(class)-level norms.

Summary

Curriculum profiling systems share several common elements, including indicators, bands, assessment contexts and recording/reporting procedures. Yet, there is variation in the ways in which the different systems are implemented in practice. For example, users of NCA in England and Wales are asked to administer standard tasks or tests, and teachers’ own judgements are less important than in other systems. In contrast, users of Australian National Profiles and the Victoria Profiles can use their own classroom assessments as the basis on which to rate their pupils’ achievement.

Development of the Curriculum Profiles at the Educational Research Centre

Following a review of the literature on curriculum profiles (see O’Leary, Shiel & Forde, 1995), it was decided to proceed with the development of curriculum profiles at the Educational Research Centre. The following assumptions underpinned this work.
(a) Profiles should allow for continuous assessment of pupils across all subject areas on the curriculum;

(b) Profiles should provide teachers with formative assessment information that facilitates planning future teaching/learning activities;

(c) Profiles should provide summative (summary) assessment information that can be used for recording and reporting purposes within schools;

(d) Profile scores should be based on the outcomes of teachers’ formal and informal classroom assessments;

(e) Profiles should yield information on pupil achievement that is valid and reliable;

(f) Profiles should summarise performance on key curriculum outcomes in different subject areas at each class level;

(g) Profiles should allow for comparisons between a pupil’s performance within and across subjects and subject strands;

(h) Profiles should be easy to interpret for teachers, parents and other educators.

One significant aspect of the Centre’s profiles is their focus on class level as an organising framework. This enables teachers to assess each pupil’s achievement in relation to the main curriculum content (represented by indicators) for the pupil’s class level. Other systems, such as NCA in England and Wales, cut across class levels, and allow for the possibility that, for example, a 7-year old and an 11-year old could achieve the same level in a subject, despite differences in age, curriculum coverage and educational experiences.

A second significant aspect is the strong focus on using teachers’ own assessments to inform their judgements about pupils’ achievement. Other systems, such as NCA in England and Wales, have undermined the value of teachers’ own assessments by mandating the use of standard tasks and paper-and-pencil tests.
The following working definition of a curriculum profile underpinned the Centre’s work:

Curriculum profiles contribute to the development of comprehensive and continuous records of pupil achievement across the curriculum. They are based on judgements made by the teacher about a pupil’s achievement in the context of ongoing classroom teaching and assessment activities. Curriculum profiles provide teachers, parents and pupils with meaningful formative and summative assessment information.

To date, development work has been undertaken in three curricular areas: English (oral language, reading, writing); Mathematics (number/data, shape and space, measurement) and Music. The development of the profiles entailed attention first to content (i.e., the selection and ordering of indicators) and then to scaling of indicators. The procedures that were used are described below. More detailed descriptions of the technical aspects of this work may be found in Murphy and Shiel (1996) and in O’Leary and Shiel (1997).

The Content of the Profiles

The development work described in this section was conducted during the 1995-96 school year. It entailed the identification of indicators of achievement, and the ordering and scaling of indicator sets.

Identification of indicators of achievement

Indicators of achievement were identified by a team of teachers and subject experts for each class level in English and Mathematics, and for four class bands (Junior-Senior Infants, First/Second classes etc.) in Music. The indicators, which were expressed in terms of processes that could be observed by teachers during ongoing teaching and assessment activities, were gleaned from research findings, current and proposed curriculum documents, and text books in current use. The criterion for including an indicator was its importance in the curriculum. Although
extensive checklists of indicators in each subject strand could have been developed, a decision was taken to identify no more than 15 at each class level. This process resulted in 24 sets of indicators in English (i.e. one set each for oral language, reading, and writing at 8 class levels), 24 in Mathematics (i.e. one set each for number/data, shape and space, and measurements at 8 class levels) and 4 in Music (i.e. one set at each of 4 class bands). A partial set of indicators for Music in Junior/Senior Infants level is given in Table 3. In the case of indicators whose interpretation might be unclear, explanations in the form of short notes are given.

**Table 3**

**Partial Set of Indicators in Music — Junior/Senior Infants**

- Recognises and describes music as either loud or soft
- Listens to short performances or compositions and comments in terms of personal likes and dislikes
- Recognises and describes sounds at different pitches, high or low
- Listens to individual sounds produced by a limited number of sound-making materials* and identifies their source

**NOTE:**

* sound materials include body sounds (e.g., clap, vocal sounds), homemade or commercial instruments (e.g., triangle, shaker, drum, wooden sticks) and environmental sounds (e.g., house alarm, traffic noise, bird song)

**Ranking of Indicators**

Some profiling systems, most notably the *Victoria Profiles*, have employed scaling procedures that impose strong restrictions on the indicators that can be included in any given set†. The Centre opted to
order the indicators within each set in terms of their difficulty relative to one another. A number of teachers at each class level were asked to rank the indicators for their class level from most difficult to least difficult. Using Kendall’s *Coefficient of Concordance* (Kendall, 1952), the level of agreement among teachers for each indicator set was calculated. A programme was developed that allowed for the stepwise deletion of any indicators on whose ranking there was substantial disagreement. The final ordering of indicators in each set reflected the combined rankings of the teachers who had ordered the indicators. Table 4 provides an ordered set of indicators for English reading in first class. The indicators in the table represent the main elements of the curriculum in English reading for pupils at that class level, and are ordered from most difficult to least difficult.

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**Footnote**

1 Unlike the Victoria Profiles, we did not attempt to impose uni-vocal scales upon our indicator sets by using a measurement technique such as item response theory. Our principal objection to this was that an area of the curriculum might constitute a functionally integrated set of objectives on which assessment was required, without conforming to a single underlying dimension. To attempt to form indicators into a single dimension would inevitably lead to rejection of indicators which did not fit the common (uni-vocal) scale. Conversely, all indicators in a curriculum area could be regarded as potentially different from one another in difficulty of attainment without implying that they formed a single dimension. Moreover, it seemed likely that satisfaction of a more difficult indicator would imply satisfaction of those lower in difficulty, thus forming a hierarchy. The resulting scale would be ordinal and would not involve a metric reflecting differences in difficulty level.
Table 4
Drumcondra Pupil Profiles
English Reading — First Class

READING INDICATORS : FIRST CLASS

10.* Demonstrates flexibility in combining several cues to read unknown words in a range of texts
9.* Reads and retells stories and informal texts in sequence, incorporating relevant detail
8.* Identifies and blends consonant and vowel patterns (or onsets and rimes) in attempts to read unfamiliar words
7. Justifies, on the basis of personal experience the likelihood of settings, actions, events, and outcomes in stories
6. Identifies inflectional endings (-ed, -s(-es), -ing, -ly, -er, and -est) while reading words in context
5. Generates appropriate expectations about the content of simple stories or informational texts based on title, illustrations and layout/headings
4. Locates items of information in simple informational texts
3. Sorts sets of sight words in alphabetical order, based on the first letter
2. Describes simple differences between different text types (e.g., stories, poems and informational texts)
1. Identifies and states the topic of a story or simple informational text

Notes:
10.* Cues include oral language, sentence context and letter-sound relationships. Flexibility implies trying a different approach if the first attempt is unsuccessful.
9.* Details may refer to setting, main characters, plot and resolution.
8.* Onsets are initial consonant sounds in words or syllables (e.g., /s/ in sand); rimes are vowel sounds and the consonants that follow them (e.g., and in sand). Words like each and end have no onsets and are, in fact, rimes.
Scaling of ranked indicators. The set of indicators in Table 4 represents an ordinal scale. Such a scale could be used by teachers to rate pupils’ achievement without further modification. For example, one could interpret the number corresponding to highest indicator achieved by a pupil in a particular subject strand as the pupil’s summary score, and use it for recording and reporting purposes. However, this approach would not allow teachers to compare a pupil’s achievement across different subject strands (e.g., oral language, reading and writing) or to monitor a pupil’s achievement in the same subject strand from year to year, since the distances between indicators might not be the same from set to set, and from class level to class level. For example, a ‘9’ might be more difficult to achieve in reading than in writing at some class levels, or a ‘9’ in reading might be more difficult to achieve in 3rd class than in 4th class. Therefore, it was decided to scale each indicator set so that a pupil’s achievement on the set could be reported with reference to the same standard score scale.

The development of this new scale entailed asking a second sample of teachers at each class level to (a) administer standardised tests of achievement to the pupils in their classes; and (b) rate each pupil on the appropriate indicator sets for his/her class level. The procedure for rating a pupil’s achievement on an indicator set involved beginning at the top of the indicator set, and working down until the highest indicator achieved by the pupil had been identified. The teachers were advised that, in order to arrive at their ratings, they should take into account any assessment information they had available to them about their pupils’ achievement. In the case of English writing, for example, writing samples, spelling tests, and writing portfolios were all suggested as possible sources of evidence about achievement.

For each indicator set, the pupils’ profile ratings were scaled against their standardised test results. The resulting distributions were converted to scale scores, (in this case, c-scale scores, with a range of 0-10, and a mean of 5—see Guilford and Fruchter, 1978). In practical terms, once a teacher has identified the highest indicator achieved by a pupil, the value of the indicator can be translated into a standardised (C-scale) score using a conversion table. For example, a pupil’s raw profile rating
of 6 (representing the highest indicator achieved) might be converted to a C-Scale score of 8 (indicating that relatively few pupils achieve this or a higher indicator). The C-Scale score would then be used for recording and reporting purposes.

Implementation of the Profiles in Classrooms

A study was conducted during the 1996/97 school year to evaluate the implementation of the English profiles in 12 schools, and to resolve some outstanding technical issues. The purposes of the study were:

(a) to determine how schools incorporate the profiles into their existing assessment practices and policies;
(b) to determine how classroom teachers incorporate profiles into their teaching and assessment practices
(c) to determine any difficulties schools or teachers experience in implementing the profiles
(d) to determine the extent to which teachers adopted suggested support materials in implementing the profiles
(e) to determine teachers’ satisfaction with the indicators and the profiles themselves; and
(f) to examine the reliability of teachers’ profile ratings.

The results of this study, which are reported in full in Shiel and Murphy (1997), indicate that the majority of the 64 participating teachers expressed satisfaction with the language of the indicators, the level of difficulty implied by the order of the indicators, and the clarity of the language used. Most of the teachers indicated that the profiles were useful or very useful for such purposes as yearly and term planning, clarifying teaching and learning goals, delivering a sequenced programme of work and providing feedback to children. When asked to compare the profiles to standardised tests and checklists, the teachers indicated that the profiles were most effective for allowing progress of pupils with different abilities to be recognised and reducing pupils’ anxiety over assessment. The profiles were also regarded as being more closely aligned with the school curriculum than either the standardised tests or the checklists. Finally, many teachers indicated that they found
the performance assessments that were introduced in conjunction with
the implementation study to be useful. These included reading logs,
writing portfolios and writing conferences. These findings are broadly
in line with those obtained in a recent study of the implementation of
the Australian National Profiles (Frigo & Lokan, 1997).

Conclusions

The curriculum profiles developed at the Educational Research Centre
differ from other systems in significant ways. One important feature of
the profiles is that they provide both formative and summative
(summary) assessment information. Formative assessment information
is generated in two ways: (a) by implementing and reflecting on the
results of performance assessment such as portfolios and writing
conferences, which can be used in conjunction with the profiles, and (b)
by focusing on the content of indicators and indicator sets, and using
these as guides to planning and teaching throughout the school year.
Summative information can be generated in the form of standardised
scores, which reflect overall achievement in each subject strand, at the
end of the school year.

The conflict between formative and summative assessment purposes
that has emerged in the context of National Curriculum Assessment in
England and Wales is unlikely to arise in the implementation of a
profiling system such as the system being developed by the Educational
Research Centre, which is not intended for system-level accountability
purposes. Originally, it was intended that NCA would provide
assessment information that would be useful to teachers in their day-to-
day teaching (formative), to parents (summative), and to educational
administrators (evaluative). However, according to Brown (1991),
‘While formative assessment requires open and honest admission of
failures as well as successes, summative assessment for comparative
(evaluative) purposes encourages teachers to hide the problems and
teach to the test to try to improve results’ (p. 220). Further evidence of
the difficulties that arise when the same profiling system is used to
generate formative and summative/evaluative assessment information
comes from Daugherty’s (1996) observation that the teacher assessment
strand of NCA has not received the same attention as the standard tasks element from Local Education Authorities and statutory bodies in England and Wales.

A second feature of the profiles being developed by the ERC is that they can be used for assessment of the same pupils on an annual basis. In systems such as the Victoria Profiles and NCA in England and Wales, pupils may take up to two years to progress from one level of achievement to the next. While this is less of a problem if pupils are assessed two or three times during their schooling (for example, at ages 7 and 11), it does mean that pupils who are assessed each year may make relatively little progress from year to year. On the other hand, curriculum profiles that are linked to the curriculum content for each class level are more likely to be sensitive to any progress that has been made.

A third notable feature of our profiles is their manageability. Unlike NCA in England and Wales, there is no requirement to administer specific assessment tasks or tests. Rather, teachers can choose from a range of assessment procedures that are compatible with the profiles and with the underlying curriculum. For example, the validity of teachers’ ratings could be enhanced by the availability of anecdotal notes about pupils’ use of oral language, information about pupils’ oral reading errors (miscue analysis) or records of development in their writing over time (portfolios). The results of our implementation study suggest that teachers see the value of using those performance assessments.

The forthcoming introduction of the revised curriculum for primary schools provides schools and teachers with a unique opportunity to embrace newer approaches to assessment, including performance assessments and curriculum profiles. Indeed, many of the performance assessments in English described in this chapter stem directly from teaching approaches advocated in the revised curriculum in that subject (see NCCA, 1997). Any inservice education that might be provided in the context of the introduction of the revised curricula might also be expected to support the implementation of curriculum profiles in that
teachers’ evolving understanding of the curriculum would support their interpretations of indicators of achievement based on those curricula, and the ease or difficulty with which pupils might be expected to achieve those indicators.

Finally, it must be emphasised that the success of any new approach to assessing pupils’ achievements depends on the extent to which existing practices can be integrated with newer approaches. This implies that the pace of introducing new assessment procedures in schools must be carefully monitored. The successful implementation of curriculum profiles depends not only on teachers’ familiarity with the revised curricula, but also with the supporting assessment contexts and performance assessments described in this chapter.
The idea of statutory assessment and the format it should take is a relatively new concept in the Republic of Ireland yet in Northern Ireland, the first year of Statutory Assessment has been completed following seven years of Assessment pilots. It is important therefore in any debate on assessment, that we examine the developments in Northern Ireland. Many links have already been established between education bodies in both parts of the island. These links will inevitably influence the Irish education system so it is important to ensure that the same mistakes are not repeated. The following is a summary of the development in Northern Ireland, the impact on its teaching force and the present situation.

On June 12 1989, the Northern Ireland Minister for Education, announced the publication of proposals for a Draft Order in Council. This became known as the Education Reform (N.I.) Order 1989. The INTO believed that most of the proposals outlined in the Draft Order represented an ill-conceived attack on the education system in Northern Ireland. The INTO is of the view that the best education system for all our children is one which guarantees quality education. Each child in Northern Ireland, regardless of where he or she lives, and without regard to their parents’ influence and status, is entitled to a broad, well-resourced curriculum. The INTO had serious concerns with a number of issues including:

- a national curriculum which ignored curriculum development work in Northern Ireland around which consensus had evolved;
- a rigid system of assessment and testing;
- the continuation of selective post-primary education.

The Order included a provision for the establishment of two separate statutory bodies known as the Northern Ireland Curriculum Council (NICC) and the Northern Ireland Schools’ Examination and Assessment Council (NISEAC). NICC was established to keep all aspects of the
curriculum for grant-aided schools under review and advise the Department on such matters concerned with the curriculum for grant-aided schools as the Department might refer to it or as it might see fit.

NISEAC’s role was to conduct the relevant assessments, in accordance with such rules as the council might determine and to conduct the moderation of relevant examinations and relevant assessments.

The Order also gave DENI (Department of Education for Northern Ireland) the power to specify “attainment targets” (specific teaching and learning objectives), “programmes of study” (teaching content), “assessment arrangements” (the means of assessing attainment by the end of each Key Stage).

In September 1990, the Chief Executive of NISEAC published the proposals for Assessment Arrangements within the Northern Ireland Curriculum at Key Stages 1, 2 and 3. (Key Stage 1: 5-8 year olds; Key Stage 2: 8-11 year olds; and Key Stage 3: 11-14 year olds.) These included:

• reporting of pupils’ achievement to be on a ten level scale in each subject as in England and Wales;
• the timing of the reporting of the assessment outcomes for Key Stage 2 to be such as to enable parents to reach decisions about the pupil’s transfer from Primary to Secondary education;
• a cumulative record of pupil achievement to be compiled during each Key Stage and parents to receive information on their child’s progress across a range of subjects.

The proposed arrangements included continuous monitoring of pupils’ work by teachers and the use of External Assessment Resources (EARs). To ensure consistency in Assessment it was proposed to have internal standardisation within the school and standardisation across schools (through meetings of groups of teachers).

The INTO welcomed NISEAC’s general approach as outlined in the consultation document. The recognition of the professional role of the
teacher in the continuous monitoring process was well received. However, the Organisation stated that the assessment model should not place an excessive demand on teachers. “The educational work of teachers and the learning process must not be distorted by an over-detailed system of assessment and record-keeping, thereby impinging on teaching time.” The INTO rejected the role of the EARs stating that the recording of information should be such as to minimise disruption of the teaching/learning process.

The INTO believed that the consequences of the proposals in restricting teachers and pupils by the requirements of assessment and testing would mean that child-centred learning would succumb to an exam-centred curriculum. Formal assessment at the end of Key Stage 1 (8 year olds) was seen to be a time-wasting and educationally unsound practice. The INTO expressed regret that the Government, having imposed a common curriculum for all schools with a common system of assessment, did not grasp the opportunity to end educational apartheid at post-primary level. Instead it proposed to use the results of Key Stage 2 assessment as a selection tool for entry to Grammar Schools.

In 1991 the Draft Education, Individual Pupil’s Achievements Regulations (N.I.) were published and were due to come into force in August 1992. These were designed to ensure;

• that all schools provide parents, at intervals of not more than one year, with written reports on their children’s achievements;
• that each pupil, on leaving a school, received a document (a Record of Achievement) which recorded his/her achievement in a wide variety of fields, academic and non-academic;
• that the reports to parents and the Records of Achievement contained a specified minimum of information and were provided within a specified time-scale.

The INTO requested an extension to the consultation period on the grounds that the report of a 4 year pilot project indicated that pupil achievement records increased the workload on schools, requiring additional teaching time, resources and clerical support. To fully
implement the regulations, teachers would need financial assistance for filing and storage and computer hardware and software.

In 1991, the Northern Committee of the INTO issued a statement calling on Lord Belstead to launch an immediate review of the pace and process of education reform. Throughout 1992, the INTO entered into discussions with its members and other teaching unions in Northern Ireland about the impact of the assessment arrangements in schools and the appropriate course of action to take in response. In November 1992, the INTO launched its campaign “Enough is Enough”. This action resulted in INTO members withdrawing from the NISEAC Pilot scheme on Assessment, and all other new assessment arrangements for all Key Stages. INTO members also withdrew from participation in inservice training associated with the Pilot scheme.

In January 1993, Lord Belstead announced that the use of External Assessment tests would be limited to Maths, English and Science and that the Curriculum Assessment Instruments (CAIs) would also be restricted to the same three subjects. He did, however, maintain the option of expanding the use of CAIs to the other subjects in future years. During 1993, the INTO conducted a survey of a random sample (10%) of the membership and concluded that:

- 97% of the membership were not ready for statutory Assessment;
- 94% of the schools were not ready;
- 91% agreed that the 1992/93 Assessment arrangements were unworkable and professionally unacceptable;
- 81% felt that the Government’s Curriculum and Assessment arrangements had reduced actual teaching time;
- 95% stated that relating assessment levels to pupils’ age was totally unacceptable.

In March 1994, the INTO carried out a major evaluation of the 1993/94 assessment arrangements which found that:

- the 1993/94 Assessment Arrangements proved to be unmanageable, unworkable and unacceptable;
• there should be no more new assessment arrangements - either on a statutory or a pilot basis - until the curriculum reviews were completed, put in place, and evaluated;
• the continuation of the 10 level scale must be urgently reconsidered;
• any further proposals for the development of a suitable system of pupil assessment should be developed for Northern Ireland in full consultation with recognised teachers’ unions;
• there should be no formal assessment at Key Stage 1;
• the present dual form (selection at 11 and end of Year 7 Statutory Assessment) of pupil assessment at Key Stage 2 was damaging to pupils’ education;
• the continuing problem of selection at eleven for post-primary education needed to be tackled urgently;
• any proposed new system of pupil assessment should address special needs in schools.

In July 1994, the Minister for Education (N.I.) announced that in 1994/95 Assessment would not be a statutory requirement.

In March 1995, the new NI Minister for Education announced that Statutory Assessment would be introduced in 1996/97.

On the 4 March, 1996, Michael Ancram announced the format for statutory pupil assessment from September 1996. In his statement he said:

“All pupils will be assessed at ages 8 (KS1), 11 (KS2) and 14 (KS3) starting in the 1996/97 school year. At Key Stages 1 and 2, they will be assessed in English and Mathematics and at Key Stages 3 in English, Maths and Science. Key Stage 1 and 2 assessment will be by the pupils’ class teacher, on the basis of normal classwork, with results externally moderated and at Key Stage 3, teachers will again assess their pupils’ work, and there will also be external tests, externally marked, in reading, writing, mathematics and science.”

On 8 March 1996, the Northern Committee of the INTO submitted an emergency motion to Northern Conference. In this motion Northern
Committee sought the mandate of members to monitor and evaluate the 1996/97 arrangements with particular regard to manageability, workload, demands on teaching time and learning in the classroom. Following this evaluation Northern Committee would consult with the membership on the question of participation in any future arrangements. The motion received the unanimous support of the delegates. INTO made it clear to the Minister that future participation by INTO members in the proposed assessment arrangements beyond the 1996/97 year hinged on whether he proceeded with his stated intention to publish the aggregated results of pupils’ assessment in the form of performance tables.

The Current Situation

In September 1996, the Department of Education (N.I.) made an Order providing the statutory base for assessment in Northern Ireland. The arrangements for 1996/97 were:

- Statutory Assessment of English and Mathematics at Key Stage 1 and Key Stage 2 will take the form of teacher assessment with moderation.
- In Irish Medium schools, pupils will be assessed by their teachers in Irish and Mathematics at Key Stage 1 and in English, Irish and Mathematics at Key Stage 2.
- Pupils who have statements of special educational needs and who have been assessed as having severe learning difficulties are exempted from Statutory Assessment. Pupils with moderate learning difficulties will be assessed through teacher assessment; specific assessment materials will be developed to help teachers determine the progress of such pupils.
- In 1996/97 assessment outcomes will not be published on a school and regional basis, although it is expected that this will eventually be the case. However, parents will receive their children’s assessment results, including at Key Stage 3, the test results, together with a summary of the results for the school at the appropriate key stage.
- Substitute cover is provided for teachers to carry out the assessments; up to two days for Primary teachers and one day for English, Mathematics and Science teachers at Key Stage 3.
Teacher Assessment

The process involved in assessing pupils in Northern Ireland is as follows:

Class Assessment Records.
In December 1996 schools were issued with Class Assessment Records for Year 4 and Year 7 classes. There are separate Class Assessment Records for boys and girls. Each Record contains a name register, together with separate sheets on which to record the outcome of assessment for each attainment target.

Assessment Units.
Assessment Units are specific units developed to assist teachers in confirming their own assessment. These were delivered to the schools in June 1996. The teachers mark the assessment units in accordance with a marking scheme provided by the Council for Curriculum Assessment and the results are recorded in the Class Assessment Record. Examples of the pupils’ work which indicate the level at which a pupil is working are kept in English, Maths and, where appropriate, Irish. These portfolios are used for moderation, described as Quality Assurance Moderation. Schools are moderated once every three years, to ensure standards are in line with other schools.

Schools are also required to engage in internal standardisation. Support for this is on two levels:

• Guidance notes from the Council for Curriculum Assessment.
• Direct assistance from moderators.
• Assistance in arranging for teachers from small schools who wish to come together to agree standards.

Reporting to Parents.
Schools are required to report to parents, by the end of the school year, the following:

Key Stage One
• The level attained in English, or Irish for pupils in Irish Medium
schools.
• The level attained in Mathematics.
• The percentage of pupils in the school attaining each level in each subject.

**Key Stage Two**
• The level attained in English.
• The level attained in Irish for pupils in Irish Medium schools.
• The level attained in Mathematics
• The percentage of pupils in the school attaining each level in each subject.

**Key Stage Three**
• The level attained in each subject.
• The teacher assessed level in each subject.
• The percentage of pupils in the school attaining each level in each subject.

Also, schools are required to provide to parents of pupils with special educational needs the levels attained by those pupils in individual attainment targets. Similar information should be provided to other parents who request it.

**Conclusion**

Within seven years of the original proposals to introduce assessment into the Northern Ireland system of education, it finally became statutory in 1997. However, the model first proposed, i.e. assessment in subjects as well as English, Irish and Mathematics, external examinations at Key Stages one and two and little consideration for the extra work-load for the class teacher was considered unacceptable to the Teaching Profession. Recognising, however, the need for some form of assessment which would enhance the teaching/learning process, provide information for parents on the progress of their children and inform the Department of Education regarding standards in education, the profession entered into formal discussions with the Minister.
In September 1996, INTO members, along with all other teachers in Northern Ireland began implementing the statutory Assessment Arrangements for 1997. There was a further setback in early 1997 when it emerged that the education service in Northern Ireland was seriously underfunded. As part of the INTO campaign to secure additional funding for the education budget, all work relating to the statutory Assessment Arrangements ceased on 23 April 1997. Following industrial action, the Government injected additional sums of money into the education budget. The INTO action was suspended on September 15, 1997 following a meeting with the Education Minister, in which the INTO was assured of his commitment to fight for additional funds for education.

The experience in Northern Ireland highlights the importance of negotiation with the Partners in Education, the need for adequate inservice and the provision of time for teachers to engage in the assessment process. The INTO never disputed the value of assessment. It was the manner in which the proposals were first introduced, and the unrealistic demands which were being made of teachers which caused the problem. The implementation of the revised assessment arrangements in Northern Ireland will continue to be monitored closely.
CHAPTER V

Conclusion

Assessment is an integral element of the teaching learning process. Its primary purpose is to assist teachers in enhancing their pupils learning by providing information about their knowledge, their understanding of concepts and their mastery of skills, with a view to planning appropriate learning programmes for each pupil. In addition to supporting the teaching/learning process, assessment may also be used to provide information to parents regarding the progress of their children in school and to monitor general standards in the education system. This report has attempted to outline recent developments in the field of assessment.

The revised primary school curriculum, which is scheduled for completion in December 1997, addresses the issue of assessment in all curricular areas. Each curriculum statement addresses not alone the role of assessment, but also the areas to be assessed and the methods of carrying out assessment procedures. Emphasis is also placed on the importance of a balanced approach to assessment. The assessment methods proposed by the National Council for Curriculum and Assessment (NCCA) include both highly structured and less structured methods of testing including teacher observation, teacher designed tasks and tests, work samples, portfolios, diagnostic tests and standardised tests. These assessment structures can be used for formative or summative assessment as appropriate. Whereas assessment in primary schools is mainly formative, teachers also need to provide summative information on pupils’ progress. Summative assessment can be described as the process whereby information regarding pupils’ overall achievement is recorded and reported in a systematic and structured way. The results of summative assessments, which can include teachers’ interpretation of formative assessment in addition to information provided by more structured tests are usually made available to parents, either in report form or in conference with the parents of each individual child. The organisation favours a more structured approach to the recording and reporting of assessment information to parents.
Chapter II describes some new forms of formative assessment including adaptive assessment, instructional assessment, item response theory, analytical assessment, instructional assessment, and dynamic assessment. Adaptive testing, in particular, would be welcomed by schools with access to information technology, as it is basically a computer application of testing procedures with which teachers may be more familiar.

The development of curriculum profiles by the Educational Research Centre which are suitable for use in Irish schools and which address the issues of accessibility, reliability, and manageability is welcome. The use of curriculum profiles facilitates a structured approach to recording teachers' ongoing informal observation and assessment of pupils. Profiles which make unacceptable demands on teachers' allocation of time for teaching will not enhance pupils' learning. However, profiles which are linked to curriculum taught, which allow for freedom of selection of assessment tests and which are useful to teachers in their teaching are more likely to be accepted by teachers. As long as profiles are not used for the purposes of evaluation, they may herald the way forward for assessment in the primary school. The use of profiles is included by the NCCA in each curriculum statement and is, therefore, likely to become more common in primary schools. Care must be exercised to ensure the design of curriculum profiles facilitates the easy recording of the maximum amount of information involving a minimum of teaching time.

The main theme running through this report has highlighted the positive and negative effects of assessment. The underlying tensions between the positive and the negative aspect of assessment have emerged to an alarming degree in England and Wales. These tensions have been well documented in an article entitled, “Whatever Happened To TGAT [Tast Group on Assessment and Training] (1997).” Professor Black describes how the TGAT reports were adopted by the government, implemented in part and finally abandoned. The TGAT reports contained most of the positive aspects of assessment. For instance, they emphasised teachers' own assessments; they endorsed criterion referencing; they sought to make reporting manageable and to overcome “league table” reporting by proposing that assessment results...
should be reported in a context of interpretation. However, the TGAT’s arguments on the importance of progression and on assessment as a guide to learning, led to the rejection of the report.

Paul Black’s analysis highlights the inherent difficulties in forming public policies that aim for changes in curricula and assessment. He emphasised the following weaknesses in the TGAT model:

- the curriculum and assessment were developed separately;
- the pace of change was too fast (he recommends ten years of development);
- teachers did not feel that they had ownership of the new practices;
- the changes were being made by diktat;
- the public generally and policy makers in particular, have a very imperfect understanding of the functions and limitations of assessment and testing and of their interactions with effective learning.

The development of curriculum and assessment in Ireland has been coordinated through the National Council for Curriculum and Assessment (NCCA). Teachers were involved in the whole process, i.e. preparation of curriculum statements, teacher guidelines and recommendations for assessment.

The INTO welcomes the incorporation of assessment into all curricular areas as an integral part of the teaching learning process as proposed in the revised curriculum for primary schools. To ensure that teachers can have a sense of ownership of the process of curriculum development, a comprehensive systematic inservice programme is required as the revised curriculum is implemented in schools. The CEC of the INTO recommends an implementation phase of five years following the introduction of the revised curriculum. Inservice will need to be provided for all teachers in the various curricular areas. Such inservice shall also address issues such as assessment, school planning and information technology. A well thought out positive approach to the implementation of the revised curriculum, which includes assessment, should avoid the weaknesses of the approaches used both in Britain and
in Northern Ireland.

The assessment element in the revised curriculum for primary schools does not, however, take account of the role of evaluative assessment in teaching, learning and the education system generally nor should it. However, evaluative assessment has a number of functions which should be debated by teachers. It can, for example, be used

- to assess the effectiveness of their own mediation of the curriculum to pupils by schools and to monitor the appropriateness of their curricular and organisational planning
- to monitor the standards that are being achieved in particular areas of the curriculum
- to monitor the general effectiveness of the primary education system
- to indicate the appropriateness and effectiveness of the curriculum
- to monitor levels of achievement in relation to those that pertain internationally
- to identify particular requirements in relation to other parts of the education system
- to identify the effectiveness or appropriateness of the education system in serving particular needs

It can have a role to play both in the provision of effective teaching and learning and in monitoring the success with which the education system is accomplishing this generally.

At school level evaluative assessment can complement formative assessment in the areas of curriculum and organisational planning. In planning for the curriculum school staffs will develop a curriculum programme that is tailored to the needs of the school and its particular circumstances, put in place the appropriate organisational structures to give it effect and identify the teaching and learning resources and approaches best suited to its effective implementation. These in turn will be reflected in the planning and methodologies of the individual classroom teachers. Through a continuous review of both, in which the formative, diagnostic and summative assessment procedures that are in use throughout the school will play a significant part, the effectiveness
with which the curriculum is being mediated to the pupils can be monitored. In this way the school can evaluate its own performance and modify its planning accordingly. This process of internal evaluation, involving a collaborative effort by the school staff and motivated by teachers' professional concerns was first recommended in the report of the Review Body of the Primary Curriculum (1990).

The other functions of evaluative assessment above are concerned with monitoring the performance of the educational system at a more general level. The results of such assessment have an important contribution to make to the effective operation of the primary education system. It is the responsibility of the Department of Education to satisfy the legitimate right of the state by providing it with such information. How this can be accomplished, however, requires careful consideration of the nature of such assessment, its purpose and the most appropriate means of encompassing it. The results of such evaluation can be useful in informing decisions in the following areas, for example:

- curriculum review
- pre-service education
- in-service education
- provision of resources
- the needs of second level education.

In deciding on the assessment procedures that will be most efficient and most effective it is important to identify those that cause the minimum interference with children's learning.

Of its nature such evaluative assessment will involve the use of standardised tests. The range of attainment and performance that these tests can measure is limited. It is important to recognise, therefore, that the information to be gained from them, although valuable in its own right, is amenable to limited application only. National assessment of an entire cohort of pupils of a particular age or at a particular stage in their school careers has been and still is a common means of effecting evaluative assessment. This may involve the use of standardised tests alone or, as is current practice on Britain, in conjunction with teacher
assessment. The inadequacy and, indeed, downright deleterious effects of this model have been fully enunciated in Chapter 1 and require no further comment. What makes it even less attractive is that the evaluative information accruing from it could be arrived at through a model that is more compatible with both the desired outcomes and the role and function of formative, diagnostic and summative assessment in the learning and teaching process.

Typical information required from evaluative assessment could be:

- some general aspect of the education system
- attainment in a particular subject area or part of a subject area
- attainment in a particular area of the curriculum by a specified age or class cohort
- levels of attainment at particular points in the education process.

Current research indicates that selective random testing of schools or pupils can produce information in areas such as these whose accuracy and reliability is just as trustworthy as that resulting from national testing while avoiding such educationally undesirable outcomes as pupil stress, curriculum distortion, educationally inappropriate methodology, manipulation of test procedures and inappropriate decisions on the retention and promotion of pupils.

Although the true purpose of evaluative assessment is to monitor the general level of attainment in and the general effectiveness of the educational system Chapter 1 outlines how this has been complicated by an attendant preoccupation with the accountability of schools and teachers and the assumption that standardised testing and national testing provide the only acceptable means of ensuring this. This approach is not a feature of Irish primary education but the possibility of introducing it has been suggested and discussed in recent years. As is indicated in that same section this conviction is based on a false view of the aims and philosophy of the primary curriculum and an inflated expectation of what such testing can achieve. Apart from the distortions (already referred to) that the inappropriate use of standardised and national testing can produce in educational practice other means
already exist through which the accountability of schools and teachers can be assured.

A system of effective evaluation well-attested and refined over the years is conducted by the inspectorate of the Department of Education. School reports, carried out by school inspectors every four or five years enables the Department to monitor the effectiveness of individual schools in fulfilling the educational needs of children across the full spectrum of the curriculum while at the same time contributing to the school's own process of evaluation.

Furthermore, the combined experience of the inspectorate can provide a profile of attainment in the primary education system and of the general effectiveness of the system which, although not expressed in exact measurement terms affords an evaluation that reflects the mediation of the curriculum more truly than the standardised testing of pupils in some of its narrower aspects.

Teachers and schools are made accountable, too, through reporting the results of their own assessment procedures to parents. The approach to assessment recommended in the various statements of the revised curriculum comes into effect with the implementation of the curriculum. The information available to parents and other educational agencies, particularly with the standardisation of teacher observation through curriculum profiles, can only increase in detail, accuracy and usefulness.

Assessment has an important function at many levels of the primary education system ranging from its formative, diagnostic and summative roles at classroom and school level to its evaluative role at national level. If the education system is to be effective each form of assessment should be accorded its appropriate importance and legitimacy. It is crucial, however, that the functions of the different forms are clearly defined and acknowledged and that the most appropriate procedures be employed to fulfil the functions of the different forms, thereby avoiding the misuse of assessment, the distortion of curriculum and methodology that this can entail and the
The INTO supports the following principles regarding assessment in the primary school.

1. Assessment is an integral part of the teaching learning process.

2. The primary purpose of assessment is to assist the teacher to plan and teach effectively in order to maximise children’s future learning.

3. The application of tests or curriculum profiles should not make disproportionate claims on class time or pupil activities.

4. Schools should be facilitated in developing policies on assessment, to include the formative assessment of their pupils, and summative assessment with a view to providing results to parents.

5. Curriculum profiles should use relevant descriptions of achievement designed to inform teaching and learning, and should be available in all curricular areas.

6. Appropriate diagnostic tests should be developed which may be administered to children whose difficulties remain unidentified following formative assessment. Such tests would be particularly important at senior infant level in order to provide access as early as possible to appropriate intervention for children who present with particular difficulties in certain areas of the curriculum.

7. Standardised tests should be developed for administration in all classes between first and sixth class, in all curricular areas. Such tests should be available to teachers free of charge with a view to enabling teachers, in line with their respective school policies to implement formative assessment programmes in their schools.

8. Standardised tests, curriculum profiles and other similar test
instruments should be developed for administration to pupils who are learning through the medium of Irish as either a first or a second language.

9. The administration of tests for the purpose of aggregating assessment outcomes for each school is totally undesirable, inappropriate and unacceptable because of the danger that it will narrow the focus of the curriculum, distort the purpose of assessment and cause irreparable damage to the pupil teacher relationship, where confidentiality and trust is so much a part of the teaching learning process.

10. Teachers will continue to cooperate fully in the administration of regular assessment of the performance of a sample of schools through multiple matrix sampling with a view to providing information to the Department of Education and to the general public.

11. A comprehensive programme of incareer development should be introduced enabling teachers to become familiar with the methodology involved in keeping individual profiles on children. Incareer development programmes should also help familiarise teachers with standardised assessment systems and group moderation schemes designed to ensure uniformity of standardisation on the descriptors of achievement in relevant kinds of profiles. The process of recording and of developing effective communication techniques should also be addressed in incareer development programmes.
Tests for Primary Schools

A: Educational Research Centre

The Drumcondra Primary Reading Test (DPRT). (Educational Research Centre, 1994, 1997). The DPRT is an objective, group-administered test of silent reading designed for use in primary schools. Levels 1 - 6 are designed for use in the first to sixth classes respectively. There are two forms, Form A and Form B. Spring norms are available for each level of the DPRT, while Autumn norms are also available for Levels 2 - 6. A machine-scoring service is available for Levels 3 - 6.

The Drumcondra Primary Mathematics Test (DPMT). (Educational Research Centre, 1998). The DPMT is an objective, group-administered test of achievement in Mathematics that was standardised in May, 1996. There are three subtests, concepts, computation and problem solving. Levels 3 - 6, for the third to sixth classes inclusive, will be available in Spring, 1998.

The Drumcondra Attainment Tests. (Educational Research Centre, 1975 - 77). The Drumcondra Attainment Tests in English and Mathematics continue to be available for the second to sixth classes inclusive. The Irish test continues to be available for the third to sixth classes. Each test has two forms, Form A and Form B. Both Autumn and Spring class level norms are available.

The Infant Reading Tests (Brimer & Raban, 1979, Educational Evaluation Enterprises). The Infant Reading Tests, which were developed in England, consist of three pre-reading and three reading tests. These can be administered to groups of pupils in the 4 to 7 years age range. The pre-reading tests assess temporal-spatial co-ordination, sound discrimination and shape discrimination. The reading tests assess word recognition, sentence completion and reading comprehension. Approximate reading ages are provided for the reading
comprehension test.

The Otis-Lennon Mental Ability Test - Elementary 1 Level Form J (Adapted Irish version). This is an 80 - item group test that has been adapted for use in the 2nd and 3rd classes in Irish primary schools. No reading is required. The test measures the mental processes of classification, following directions, quantitative reasoning, comprehension of verbal concepts and reasoning by analogy. Norms are provided for beginning and end of year for the second and third classes.

The Rain Sentence Test (Reading Association of Ireland - Navan Branch, 1986). The Rain Sentence Test is an individually administered test of oral reading for pupils in the 5 to 12 years age range. Both class level norms (for the 1st to 6th classes) and reading-age norms are provided.

Further Information:
Test Department
Educational Research Centre
66 Richmond Road
Dublin 3
Tel: (01) 837 3789
Fax: (01) 837 8997

B. Mary Immaculate College of Education

The SIGMA-T Mathematics Attainment Tests have been especially developed for use by teachers in Irish primary schools. The tests enable teachers to compare the performance of pupils in their classes with the performance of other pupils throughout the country who are at the same class level. In this way, they can help teachers to identify pupils who are performing poorly in mathematics and, equally importantly, they can accurately quantify the extent of pupils’ mathematical difficulties.
There are five levels of tests which are intended for use with pupils from the beginning of First Class until the end of Sixth Class. The teacher manuals contain clear administration instructions and marking stencils are available to facilitate easy scoring. Parallel forms of the test have been developed to minimise problems associated with copying.

The **MICRA-T Reading Attainment Tests** have been designed, constructed and standardised for use in Irish primary schools. The tests will provide teachers with accurate information on the reading levels of pupils in their classes. They can assist teachers in identifying pupils who are experiencing reading difficulties and can help to quantify the magnitude of these difficulties. The test results can also be of benefit to teachers in deciding whether pupils require remedial help and whether pupils are ready to transfer to the next standard.

There are three levels in the MICRA-T which cover all standards from the end of Senior Infants until the end of Sixth Class. The administration of the tests is straightforward and the total administration time of each of the tests is less than an hour. There are alternative forms at each level to eliminate copying and to allow for re-testing.

Both the MICRA-T and SIGMA-T are available to teachers directly from the publisher, C.J. Fallon.
APPENDIX II

Some Tests in current use in Northern Ireland

BASIC SKILLS

Bristol Achievement Tests Levels 1, 2 & 3 and Interpretative Manual (English, Maths & Study Skills)
Richmond Tests of Basic Skills, 2nd edition
Middle Infant Screening Test (Mist)/Forward Together
Bury Infant Check - Pearson & Quinn
Quest: Second Edition

SPELLING

Diagnostic Spelling Test - Vincent & Claydon
Graded Word Spelling Test - Macmillan Test Unit

READING

Assessing Reading Difficulties
Domann Phonic Test
The Early Detection of Reading Difficulties - A Diagnostic Survey
Edinburgh Reading Test, Stages 1, 2, 3, 4
Get Reading Right
Graded Word Reading Test - Macmillan Test Unit
Group Reading Assessment
Group Reading Test
London Reading Test
NFER Group Reading Test 6 - 12
NFER Group Reading Test 9 - 14
NFER Reading Test AD & BD
Neale Analysis of Reading Ability, Revised British Ed.
The Primary Reading Test - France
Schonell: Graded Word Reading Test
Southgate Group Reading Tests 1 & 2
Thackray Reading Readiness Profiles
Widespan Reading Test
Suffolk Reading Scale - Hagley
Spar Reading Test
Young Reading Test
Vernon Reading Test

MATHEMATICS

Basic Mathematics (NFER) Tests B, C, DE (test only), EF (test only)
Bristol Achievement Tests: Mathematics, levels 1, 2, 3
The Leicester Number Test
Mathematics Attainment Tests A, B, C1, C3
Mathematics 7
Mathematics 8 - 12
Nottingham Number Test
Oliver & Boyd Maths test
Profile of Mathematical Skill
Staffordshire Maths Test
Spar Maths Test
Young Maths Test
Vernon Maths Test
REFERENCES

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Chapter II


Dublin. Stationary Office.


Chapter 3


83
Assessment handbook: English (Key Stage 1). London: Author.

Great Britain, School Curriculum and Assessment Authority. (1994). 


Chapter V