Assessment Issues in non-European Countries
A brief review of literature
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European Agency for Development in Special Needs Education
This review has been prepared by NAREM Associates, UK, in co-operation with the European Agency for Development in Special Needs Education as one of the activities within the Agency Assessment project.

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CONTENTS

1. INTRODUCTION ........................................................................................................... 4

2. METHODOLOGY ......................................................................................................... 6
   2.1 Review Parameters.......................................................................................... 6
   2.2 Methods Used ............................................................................................... 7

3. ASSESSMENT POLICY ............................................................................................ 9
   3.1 Australia ......................................................................................................... 9
   3.2 Canada ......................................................................................................... 10
   3.3 New Zealand ............................................................................................... 11
   3.4 South Africa ................................................................................................. 12
   3.5 United States of America ............................................................................ 13
   3.6 Common Policy Trends and Factors? ......................................................... 15

4. ASSESSMENT PRACTICE ....................................................................................... 17
   4.1 Evidence Based Assessment Practice? ....................................................... 17
   4.2 Diagnostic Assessment ............................................................................... 18
   4.3 Modifying 'mainstream' assessments ......................................................... 19
      4.3.1 Assessment Linked to Teaching Programmes ...................................... 21
      4.3.2 Assessment linked to an Individual Education Plan (or similar) ...... 23
   4.4 Participants in Inclusive Assessment ......................................................... 23
      4.4.1 Pupils ................................................................................................. 24
      4.4.2 Parents .............................................................................................. 25
      4.4.3 Teachers ........................................................................................... 26
   4.5 School Organisation ..................................................................................... 27
   4.6 The Need for Research ............................................................................... 28

5. CONCLUSIONS .......................................................................................................... 30

REFERENCES ................................................................................................................. 33

OFFICIAL WEBSITES CONSULTED .............................................................................. 37
1. INTRODUCTION

In 2003, the member countries of the European Agency for Development in Special Needs Education identified assessment in special needs education (SNE) settings as being an issue of major concern and interest for them. As a result, in 2004, the Agency began an investigation into assessment in mainstream primary settings that supports inclusion.

A number of activities were planned for the first phase of this project, one of these being a short review of literature on assessment practice in primary inclusive education settings in non-European countries. This document presents the report of the main literature examined. Alongside this report, there is a listing of 'Useful Materials' with abstracts and availability information. This listing is available from the Agency's website: www.european-agency.org

The work associated with the review has been conducted by a team of special education consultants from NAREM Associates, UK in co-operation with the project management team from the Agency. The final presentation of this work has been undertaken by the Agency Assessment project team.

The aim of this review is to present an overview of the main issues that appear in English language literature coming from non-European countries. A description of the methodology used for the review is presented in the next section (2), but it needs to be made clear here that this review is neither exhaustive nor in-depth. The constraints of completing the work and the mass of possible sources available meant the aims of the work were necessarily modest – highlighting key issues relating to assessment policy and practice in primary inclusive classrooms that seem to be faced by different counties, as well as collate details on sources of information and materials that could be useful for further reference and consideration in the project (the 'Useful Materials' listing).

Initially, the focus of the review was to have been solely upon assessment practice; specifically evidenced based research that highlights factors involved in best practice assessment in primary inclusive classrooms. However developments in the Agency project as a whole, as well as the conducting of an initial 'quick scan' of available material lead to a reconsideration of the focus of the review and a decision was taken to briefly examine issues in assessment policy as well as practice evident in the literature.

In line with the other information gathering activities of the Agency Assessment project, information on general as well as special needs education specific assessment policy was considered. There is a mass of information readily available on key National websites in relation to policy initiatives and so an overview of key policy strategies mainly from five (mainly) English speaking countries is presented in Section 3.

Section 4 of this report presents issues evident in relation to assessment practice that emerge from published research in the field. Section 5 presents some conclusions in the form of main messages arising from the review overall. This section is followed by a reference list and list of officially consulted websites. All main
sources of information referred to in this report have also been included (with more detailed availability information) with the 'Useful Materials' listing.

Throughout this report, the terminology used attempts to be as consistent as possible with that employed within the Agency Assessment project. Whilst the terminology and particularly the distinction between the terms assessment and evaluation is not as clear cut in much of the literature reviewed, the usage in this report (as well as the Agency project) is in line with what Keeves/UNESCO (1994) advocates when suggesting that assessment should be understood as referring to determinations and judgements about individuals (or sometimes small groups) based on some form of evidence; evaluation refers to the examination of non-person centred factors such as organisations, curricula and teaching methods; measurement refers to assessment or evaluation that is linked to some form of numerical quantifier.

It is recognised by the team working on this task that this report is perhaps only identifying the tip of the iceberg of material that is available in relation to the topic. However it is hoped that the issues raised here are useful in promoting discussion and highlighting potential issues for more detailed examination in further stages of the Agency Assessment project.
2. METHODOLOGY

In this section, the aim is to provide an overview of the main methods used for collecting and considering the information presented in this review report. However, before describing methods, a brief note regarding the possible functions of this review will be made.

Taylor and Proctor (2005) describe a literature review as an account of what has been published on a topic by accredited scholars and researchers. Whilst this is considered a creditable aim, within the context of this review, it presents some problems in terms of application. To give an account of all that has been published in relation to assessment that impacts on primary inclusive classrooms is totally beyond the remit of this project activity.

Perhaps an even more problematic issue highlighted by this description from Taylor and Proctor is that of determining what is and isn’t ‘accredited’ research. Is research accredited because it has been published in official (for example ministerial) sources, a journal or publication recognised by other researchers, or is it creditable because it has potential value for the work – in this case the wider Agency Assessment project - being undertaken? Within the context of this review, it was agreed with the Agency project team that sources of useful and potentially interesting information relating to assessment policy and practice may not necessarily only be available from books and journals, but websites – particularly Government websites – in addition to sources of ‘grey literature’ and that these should also be looked at.

Whilst the examination of different potential sources of information has been – as mentioned previously – necessarily modest, it has been done with the clear intention in mind of identifying non-European material that would be of use in developing the Agency project management team’s thinking with respect to policy and practice in inclusive assessment.

2.1 Review Parameters

This review was not directed by a single research question, statement or hypothesis; the aim was to highlight possible issues faced by countries rather than investigate a particular issue in isolation. The consideration of material was therefore unavoidably selective, but in order to try and highlight as pertinent material as possible, different types of search parameters were identified in discussion with the Agency project team.

At a general level, it was agreed that the review should focus upon Assessment for Learning and that alternative/related terms such as formative assessment, classroom based assessment, curriculum based assessment would also be used for identifying materials.

The reviewing task was conducted at the same time as other project activities and as the overall needs of the project became clearer it was agreed to shift the initial focus of the review from just assessment practice to also considering issues related to legal/statutory frameworks and polices for assessment in inclusive settings and how this effects/influences such assessment.
In relation to research presenting evidence based assessment practice it was agreed that the review would consider - amongst other things - issues such as methods of conducting assessments with pupils with special educational needs, purposes for assessment (administrative, selection, summative etc) and how these impact upon assessment for learning purposes.

At a more specific level, it was agreed that in relation to both assessment policy and practice, the review would focus upon material from non-European countries (with emphasis on the USA, Canada, Australia and New Zealand) and that only articles published in English could realistically be considered.

Wherever possible, material should:
- Refer to findings after 1995;
- Relate to primary education settings;
- Refer to inclusive education, mainstreaming or integration;
- Referred to pupils with SEN, disabilities or handicaps (a range of terms for special needs);
- Refer to assessment practice, curriculum based assessment, educational assessment, formative assessment and so on);
- Provide evidence or raise issues that can directly inform policy and/or practice.

The final review would include a synthesis report (this document) with a reference list (using the Harvard citation system) of all key research pieces covered in the review as well as an annotated bibliography of other useful materials using an agreed proforma. This material is presented in the 'Useful Materials' listing presented elsewhere.

2.2 Methods Used

The following main methods of searching for and identifying material for review were used:
- Searches of restricted access academic electronic databases (ERIC; British Education Index, Australian Education Index);
- Searches of open access electronic databases (CIRRIE; EducOnline)
- A search of the specialist international abstracting journal Special Educational Needs Abstracts;
- Consultation of all identified countries' Ministry of Education and related websites;
- General internet searches using specialist search tools (ATHENS) and open access search engines (Google, Alta Vista);
- Desktop library based searches.

A combination of these strategies was used to identify material used in the following two sections relating to assessment policy and practice respectively. However it is fair to say that the majority of pieces referred to in section 4 (assessment practice) were identified using the ERIC database and desk top library searches whilst the information presented in section 3 (assessment policy) was gathered through examination of official websites.

As a result of working through these strategies, it is possible to comment upon their relative success in relation to identifying material for this review. Overall, a huge amount of material was identified, but not all of this was relevant for this report. Three points in particular points need to be made:
- The terminology identified to be used as search parameters, whilst general was not always successful in highlighting relevant materials. Terms relating to assessment in the USA and Australia in particular are somewhat different – for example the use of the term 'alternate' assessment – and therefore these had to be clarified and then used in subsequent searches;
- Searches of non-European journals and publications resulted in a large number of European (country focussed or authored) articles being identified;
- Academic articles that met search criteria were often, upon closer examination, looking at aspects of assessment or inclusion or practice in isolation, but very rarely were articles/research pieces specifically examining assessment practice in inclusive settings. It appears fair to suggest that there is relatively little evidenced based material easily accessible on this topic; in fact, this (albeit limited) review would suggest that it is easier to access evidenced based material from European than non-European sources.

Searches using Internet sources generated a mass of material both in relation to assessment policy as well research into practice – however the quality of this material was not always good and very little could be described as evidenced based. A great deal of the ‘grey literature’ that was highlighted and appeared relevant was in the form of theses and research dissertations relating published on-line and this seems to suggest that small scale research is happening. For example, Berman’s (2001) PhD thesis from the University of New England, Australia, cogently discusses the theory of assessment. Whilst it is specifically about mathematics teaching and not specifically about inclusion, some of the methodology and the views on ‘dynamic’ assessment could be applicable. However the issue of how such potentially useful material is identified, collated and then added to a common ‘knowledge base’ on assessment policy and practice is still unaddressed.

The issues of quantity and well as quality – in terms of assumed reliability - of information found has lead to the write up of this review being selective. Whereever possible, multiple examples of materials have been cited in relation to what emerged as key issues. However, for some topics it was only possible to identify single pieces of research or ‘official’ policy statement useful for the project team to cite or perhaps follow up at a later date.

One final issue needs to be made very clear at this point: the reports, books, papers, websites and other sources of information referred to in this report have not been subjected to any form of critique and they are not presented in the form of a discursive argument in relation to assessment policy and practice. Rather they are presented as exemplars of issues that seem to be current in the assessment for inclusive practice debate in non-European countries.
3. ASSESSMENT POLICY

In this section of the review, key information on policy and legislation influencing assessment in inclusive settings is presented. The majority of information highlighted in this part of the review was found via official websites and Internet resources and therefore the exact links to sources are given in the text as well as summarised at the end of this report.

The first 5 sub-sections present information from Australia, Canada, New Zealand, South Africa and the United States of America respectively. The final sub-section highlights a number of policy issues that are apparent across all or most of these countries.

3.1 Australia

The main source of information on the Australian education system is available from the Ministry of Education (http://www.dest.gov.au/). This includes information on the Adelaide Declaration on National Goals for Schooling in the Twenty-first Century (http://www.dest.gov.au/sectors/school_education/policy_initiatives_reviews/national_goals_for_schooling_in_the_twenty_first_century.htm) which outlines common and agreed national goals that aim at: strengthening schools as learning communities where teachers, students and their families work in partnership with business, industry and the wider community; enhancing the status and quality of the teaching profession; develop curriculum and related systems of assessment, accreditation that promotes quality and are nationally recognised and valued; increase public confidence in school education through 'explicit and defensible standards' that guide improvement in pupils' levels of educational achievement and through which the effectiveness, efficiency and equity of schooling can be measured and evaluated.


The MCEETYA Taskforce reports to the Ministerial Council on approaches to reporting on activities and outcomes by schooling systems. These approaches support the achievement of and enable reporting on the National Goals for Schooling. In particular the Taskforce provides advice on (amongst other areas):
- The development of a small and strategic number of measures for the national reporting of comparable education outcomes;
- The development and maintenance of key performance measures as the basis for national reporting in the agreed areas;
- Areas where it may be appropriate to establish national targets or benchmarks in relation to the agreed key performance measures;
- The maintenance of the National Schools Statistics Collection including the presentation, publication and dissemination of statistical data collected as part of the collection to meet the needs of stakeholders and decision makers;
- Generating data relating to resourcing of schools to meet agreed requirements for national reporting;
- Improved public reporting on student learning outcomes. These reporting functions apply to all pupils, including those with special needs in all settings and sectors.


The Standards are "subordinate legislation and are subject to the objects of the Act". They clarify and elaborate the legal obligations in relation to education and cover: enrolment; participation; curriculum development, accreditation and delivery; student support services; and elimination of harassment and victimisation.

The Part for each area includes a statement of the rights, or entitlements, of students with disabilities in relation to education and training, consistent with the rights of the rest of the community. The statements of rights are included to assist people to understand, and comply with, the standards set out in the obligation provisions. The Parts then describe the legal obligations, or responsibilities, of educational authorities, institutions and other education providers. These are the standards with which education providers must comply.

These Standards in effect cover all aspects of education including initial and on-going assessment that may be needed to ensure that a pupil in fully included in education, as well as recognised accreditation open to all students.

3.2 Canada
In Canada, education is the responsibility of each province and territory and therefore the Council of Ministers of Education, Canada (CMEC http://www.cmec.ca/) was established in 1967 to discuss and develop shared policy. The CMEC is the "national voice for education in Canada. It is the mechanism through which Ministers consult and act on matters of mutual interest, and the instrument through which they consult and cooperate with national education organizations and the federal government".

Within the Council there is a Council of the Ministers of Education (http://www.cmec.ca/educmin.en.stm with a list of Ministries available from: http://www.cmec.ca/saip/indexe.stm

The School Achievement Indicators Program: (SAIP http://www.cmec.ca/saip/indexe.stm) is a "cyclical program of pan-Canadian assessments of student achievement in mathematics, reading and writing, and
Assessment Issues in non-European Countries

A major area of the review – and subsequent recommendations – focussed upon accountability and highlighted the need for mechanism to be developed to ensure school authorities are providing programmes for pupils with special needs, measuring student and programme outcomes, and determining parent involvement in their children’s education. A further area highlighted the end for improved initial and in-service professional development for special educators and a final area raised the issue of improving policies in relation to early identification and screening.

3.3 New Zealand


For 2004, the Ministry states that "New Zealand has a good education system with high average achievement by international standards but a wide dispersion between top achieving and low achieving students". Amongst the positive improvements noted by the Ministry for 2004 the following relating to assessment are identified: positive achievement gains of students from many of the schooling improvement, literacy, numeracy and assessment initiatives; improving professional practice in areas of assessment, literacy and numeracy; increasing levels and accessibility to information relating to student achievement and effective practice; increasing research and evidence base that is reshaping professional thinking and practice.

The report identifies the key areas of educational improvement for the future period. These include initial teacher training as well as improved in-service training, but also the further development of the national Assessment tool for teaching and Learning or asTTle (http://www.minedu.govt.nz/index.cfm?layout=document&documentid=9228&data=l). This is described as a "New Zealand-developed assessment tool which helps teachers uncover strengths and gaps in student learning". It tests reading, writing and mathematics skills and is available in both English and Te Reo M_ori from curriculum. The description continues: "asTTle is valued by teachers because it provides rich interpretation of student performance, and gives teachers choice and control over both tests and results".

"science" that has been conducted by the Council of Ministers of Education, Canada since 1993. Pupils with SEN in inclusive settings are included in this programme.

Special Needs Education provision is the responsibility of each individual territorial Ministry in Canada and although there are differences in approach, there are also similarities and an interesting overview of some of the main issues facing the territories in relation to SNE developments can be found in a major publication from Alberta entitled Shaping the Future for Students with Special Needs: A review of Special Education in Alberta (2000). The Special Education Review was initiated in March 2000, to review the delivery of educational programs and services for students with special needs. The review highlighted 66 recommendations with key issues and recommendations for action identified in seven key areas.

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A key research piece used to inform general assessment practice in New Zealand is the review *The Effects of Curricula and Assessment on Pedagogical Approaches and on Educational Outcomes* (http://www.minedu.govt.nz/index.cfm?layout=document&documentid=5610&indexid=1108&indexparentid=2107). This review analyses the literature on the effects of curricula and assessment on pedagogical approaches and educational outcomes and looks at whether there are differences between mandated or local curricula in terms of their impact on teaching practice and student learning. It also examines the effects of different assessment regimes including national or state-wide testing, on pupil learning. It focuses particularly on the role of formative assessment.

Special education is subject to central policy and implementation (http://www.minedu.govt.nz/index.cfm?layout=index&indexid=6871&indexparentid=2107). The aim of the Government's special education policy is to "improve learning outcomes for all children and young people with special education needs at their local school, early childhood centre, or wherever they are educated". The special education policy framework called Special Education 2000 was first announced in the 1996 Budget to enhance resourcing for children and young people with special education needs. The Government's special education policy affirms the right of every pupil to learn in accordance with the principles and values of the Education Act 1989, the National Education Guidelines (http://www.minedu.govt.nz/index.cfm?layout=document&documentid=8221&data=l) as well as the Special Education Policy Guidelines (http://www.minedu.govt.nz/index.cfm?layout=document&documentid=8936&indexid=7954&indexparentid=6871). The New Zealand Disability Strategy (http://www.odi.govt.nz/nzds/) is also relevant to special education, with its aim of removing the barriers which prevent disabled people from participating fully in society.

The National Education Guidelines direct schools in effective policy and practice. They include the National Education Goals, which establish a common direction for state education in New Zealand. Some of the goals incorporate a focus on pupils with special education needs in their emphasis on a broad and balanced curriculum; equal opportunities for all; and consideration of those with special needs. The Guidelines also include National Curriculum Statements which schools use to ensure that teaching and learning programmes enable all students to meet the requirements of the New Zealand Curriculum. The statements define in more detail the knowledge, understanding, skills, attitudes and values described in the New Zealand Curriculum Framework.

### 3.4 South Africa

Information on the general structure and policy for education in South Africa is available from the Ministry of Education (http://education.pwv.gov.za/). Specific information on special and inclusive education is also available (http://education.pwv.gov.za/mainActivities.asp?src=dire&xsrc=iedu)

The Constitution of South Africa (Act 108 of 1996) states that everyone has the right to a “basic education, including adult basic education and to further education, which the state, through reasonable measures, must make progressively available and accessible”. This fundamental right to basic education is further developed in the Constitution in Section 9 (2), which commits the state to the achievement of equality,
and Section 9 (3), (4) and (5), which commits the state to non-discrimination. The government’s obligation to provide basic education to all learners is guided by the recognition that "a new unified education and training system must be based on equity, on redressing past imbalances and on a progressive raising of the quality of education and training".

A key document in the on-going development of special education in South Africa is the Consultative Paper No 1 on Special Education: Building an Inclusive Education and Training System, First Steps (1995) which was the result of work by a National Commission investigating "the unsatisfactory educational experiences of learners with special education needs, including those within mainstream education whose educational needs were not adequately accommodated".

One of the key aims of this consultation was to set up the new curriculum policy - Curriculum 2005 - providing the platform for an inclusive curriculum, assessment and qualification system. Within this policy "no separate and new curriculum framework would be put in place for learners with diverse learning needs".

Within the consultation paper, various aspects of general and SNE related assessment were discussed – early assessment and intervention, continuous institution-based assessment formative assessment that provides feedback for learning, variety of assessment methods (including self and peer assessment). Crucially the consultation draws this conclusion in relation to standardised tests: "The validity of many tests used for placement is now being questioned seriously. It is the Ministry’s view that urgent attention should be given to the re-evaluation of all standardised tests prescribed by the provincial departments of education. Only tests which have proven usefulness in identifying learning difficulties and exclusion should become part of the assessment process. In this regard the routine administration of group tests of intelligence should be discontinued".

Within the Curriculum 2005 document, a series of Assessment Guidelines for Inclusion aimed at "Inclusive Outcome Based Education" are proposed as part of the general guidelines for assessment. Key issues highlighted included: principles of assessment to accommodate diversity; assessment to address barriers to learning; alternative or adaptive methods of assessment; portfolios.

3.5 United States of America
All information about education at the Federal level in the USA is available on the Government website (http://www.ed.gov/index.jhtml) Department for Education. All Federal level information regarding special education is available from the Office of Special Education and Rehabilitative Services (OSERS) (http://www.ed.gov/about/offices/list/osers/index.html?src=oc). Whilst every State has the right to set State laws, the policy and legislation for education and special education at Federal level applies in all States.

The USA has a system of National reporting of progress, which is the responsibility of the Commissioner of Education Statistics, who heads the National Center for Education Statistics (http://nces.ed.gov/) in the Department of Education. The National Assessment of Educational Progress (NAEP http://nces.ed.gov/nationsreportcard/), also known as the "Nation's Report Card," is a
specific project presenting nationally representative, continuing assessment information.

Nationwide assessments are conducted and reported on by the NAEP in key curriculum areas (for example in 2004 these were reading maths and science). In addition the NAEP conducts special topic projects on issues of concern, for example the National Indian Education Study (http://nces.ed.gov/nationsreportcard/studies/nies.asp).

According to the U.S. Department of Education's Seventeenth Annual Report to Congress (1995), more than 5 million children from birth to age 21 received special education and related services in educational establishments during the school year. 1993-1994 The key legislation directing special education policy in the USA is Individuals with Disabilities Education Act (IDEA 1997) and the Individuals with Disabilities Education Improvement Act 2004 (http://www.ed.gov/policy/speced/guid/idea/idea2004.html). The IDEA requires that all pupils with a special need have "individual progress assessment information" made available and a assessment procedures must provide continuous monitoring of individual progress if teachers are to meet the criteria for specially designed instruction as required by the 1997 Amendments to IDEA.

With the passage of the 1997 amendments to IDEA, the exclusion of pupils with special educational needs from State and district-wide assessments is no longer acceptable. The IDEA requires that pupils with special educational needs be included in assessment programmes using accommodations where appropriate and their scores are reported in the same ways that the scores of other pupils are reported. To ensure that all pupils are included, alternate assessments should be developed for the small percentage of pupils unable to participate in regular state and district wide assessments.

In the mid 1990s, the National Center on Educational Outcomes (NCEO http://education.umn.edu/nceo/) identified three aspects of the assessment process where exclusion of pupils with special educational needs often occurred: development of the assessment; administration of the assessment; reporting results of the assessment. The NCEO now provides guidance and reference information for policy makers and practitioners on how to develop accommodations in assessment for pupils with special educational needs. The purpose of these accommodations is to "level the playing field" for pupils with special educational needs.

This IDEA act and its amendments is aligned to the No Child Left Behind Act (NCLB http://www.ed.gov/nclb/landing.jhtml?src=pb) with the intention that both initiatives should help to ensure "equity, accountability and excellence in education for children with disabilities". The No Child Left behind policy aims to ensure that: "all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments".

A key thrust of the act is stronger accountability: "No Child Left Behind is designed to change the culture of America's schools by closing the achievement gap, offering more flexibility, giving parents more options, and teaching students based on what works".
Under the NCLB act's accountability provisions, States must describe how they will "close the achievement gap" and make sure all pupils and students – particularly those described as disadvantaged - achieve the stated levels of academic proficiency. Schools are required to produce annual state and school district report cards that inform parents and communities about state and school progress. Schools that do not make progress must "provide supplemental services, such as free tutoring or after-school assistance; take corrective actions; and, if still not making adequate yearly progress after five years, make dramatic changes to the way the school is run".

### 3.6 Common Policy Trends and Factors?
Although there are differences in degree, emphasis and – of course - application, all of the countries looked at have similar elements within their education policy that can be considered as having a potential impact upon assessment in primary inclusive settings:

1 – there are national level goals for education and linked to these there are different forms of standards that pupils are expected to reach;
2 – there are national level projects, departments, task forces etc with responsibilities for monitoring the performance of pupils, programmes and curricular, schools and perhaps even education districts;
3 – Assessment evidence regarding pupil performance is used as a measure of school (etc) performance;
4 – Pupil assessment information is made available in one form or another in the public domain;
5 - There are no separate assessment systems for pupils with special educational apart from measures related to initial assessment and individual needs identification;
6 - Pupils with special educational needs are entitled to access national assessments in a way that is appropriate for them i.e. assessments must be appropriately modified;
7 – National level guidelines on how 'accommodations' of assessment are to be made are available or being developed.

Within the information considered a number of factors are apparent that can be considered issues in need of further questioning or investigation. Some of these are acknowledged within countries as areas for future review and development, others are highlighted by this review as issues worthy of note:

A – Debates regarding quality of education, raising standards and education providing value for money are within the public domain and are leading to pressures to take clear action at National level;
B - All countries have a clear focus upon accountability in education and pupil assessment information is used as one accountability tool and/or measure;
C – Raising standards and especially raising the standards of achievement of pupils seen as being 'disadvantaged' (as opposed to having identified special educational needs) is a priority;
D - Increasing the quantity and or quality of information on pupil achievements is seen by many countries as an ongoing priority;
E – Teacher training in assessment techniques and methods generally and SEN focussed teacher training specifically is seen as a priority area in countries;
F - There is a move away from the use of standardised tests and/or norm reverenced assessments to the use of performance measures for providing assessment evidence on the progress of all pupils;

G - There is a recognition that formative, ongoing assessment linked to individualised teaching programmes is the most useful assessment information for pupils with special educational needs.

The intention of this section has been to describe the main policy elements and initiatives evident in countries. No attempt has been made to consider the possible implications for these policies – either in relation to practice or generally. In the next section (4) research information on assessment practice is considered and here a number of implications of the policies outlined above become evident. In the final section of this review (5) further possible implications of countries' assessment polices are presented in the form of overall conclusions.
4. ASSESSMENT PRACTICE

In this section the focus is upon assessment practice. Some of the pieces considered here relate specifically to primary inclusive settings, however others refer to general assessment practice and/or SEN specific practice. All have been considered as they appear to highlight issues that impact upon inclusive assessment.

4.1 Evidence Based Assessment Practice?

For this section of the review, evidence based research was considered in order to identify key issues in the area of assessment for learning with primary aged children with special educational needs. In addition the examination highlights examples of good/innovative practice that are research and evidence based.

Internet searches were undertaken using a variety of databases including ERIC, British Education Index, Australian Education Index and others in an attempt to identify appropriate articles. Identifiers of: inclusion, assessment, research, children and evidence based were used in various combinations to elicit a maximum response. Whilst there were quite large numbers of cited articles to be found without the term ‘children’ ‘primary’ or equivalent being used, once it was identified that only work with younger children was to be identified the number of articles found in any search very rapidly dropped, often to zero. There is considerable reference to work with older school children and university students. Much of that also seems to be lacking an empirical base.

It was only possible to identify a few studies in the area that could be considered to be Random Control Trials (RCT’s) and would be seen as appropriate to be included in a meta-analysis or similar objective review, which would form the evidence for practice. This does not mean they do not exist, but is perhaps more an indication of the limitations of the search and study itself. It is however somewhat surprising, as it is possible to find papers on assessment, but it is only on more careful reading that they, whilst being useful, are too often single case studies of a child, class or school. They may be research involving surveys to determine teachers or parents views on the educational progress of the children with SEN.

There are papers, often referring to SEN and inclusion that promote the need for research. Anderson and Helms (2002) in an extensive paper identify the need for research, pointing out that the US law of 2002, “No Child Left Behind” places great emphasis on state accountability for educational results and use of teaching methods that have been shown to work. To ensure that things ‘do work’ research based assessment will be required. Similarly Anderson (1998) identifies practices that include students with disabilities in large-scale assessments as required again by law. It discusses work of the (US) National Center on Educational Outcomes, discussing appropriate accommodations, alternative assessments and reporting of results. The report by the National Academy of Education Panel (1996) has useful data and methodological approaches, to reading, discussing how “inclusion of children with limited English proficiency or disabilities can be included and reported”.

Such pieces typify a number of articles that suggest there is a need for evidence to underpin policy and practice, but which do not clearly outline how this may actually happen. In the remainder of this section, different types of research evidence from a
variety of sources is presented and considered. The final part of this section considers some of the issues relating to the possible need for more and/or different types of research in this field.

4.2 Diagnostic Assessment
Section 3 of this review looks at some issues relating to legal frameworks for the assessment and identification of pupils' special educational needs, however in this section, key points relating to assessment practice are highlighted.

In all countries considered in this review, assessment of pupils in inclusive settings is often concerned with diagnosis, as well as associated informing learning programmes. Although there are moves to change this situation – Canada, Australia and the USA are all examples of this situation - such diagnostic investigations are often carried out in a 'clinic type' situation away from the classroom.

Whilst the tools used for this form of assessment may have a high validity and are usually empirically constructed they are rarely employed in classrooms for routine assessment. The diagnostic assessment tests used by clinical and/or educational psychologists, psychiatrists, paediatricians etc and to an extent special educationalists could be used to assess some aspects of change, but they are essentially 'snapshot in nature' and are often employed for administrative purposes related to placement and provision rather than informing teaching and learning (Madaus et al, 1997).

Psychologists have had over a century of developing, standardised objective tests which can be used across continents. Too often they are not available to the classroom teacher, would often take too long to administer and often require specific training and or permissions to undertake. Perlman (1996) states that the fact that "assessment technology hasn’t even begun to catch up to the laws and regulations that govern assessment of students with disabilities" is a major issue facing the USA at the present time.

Considering the types of assessment evidence Australian teachers routinely use to inform their teaching, Goodrum, Hackling and Rennie (2001) suggest that diagnostic evidence is rarely employed if at all as it has little value for informing teachers how to support learning.

One barrier remains the fact – or perception – that professionals involved in specialist diagnosis and those involved in education are seen to operate in different professional worlds. Bickel and Hattrup (1995) argue that more collaborative research is required to address the fact of professional ‘separation’. They suggest that there is a growing recognition that knowledge production is a responsibility shared jointly by practitioners of different research communities.

Whilst not an example of practice from the inclusive education sector, NCSALL (National Center for the Study of Adult Learning and Literacy, 2002) identifies four lessons from their experience of conducting collaborative research projects that are highly applicable to this area:

1. Connecting teachers and practitioners from different research communities has a positive impact on teachers and their practice;
2. Connecting teachers and other practitioners has a positive impact on non-educationalists and their research;
3. Effectively connecting teachers and other practitioners requires specific strategies;
4. Effectively connecting teachers and other practitioners requires specific support.

Useful collaborative work could be undertaken to see how diagnostic assessment tools could be developed for use for formative assessment. In psychological research The Child Behaviour Checklist and Revised Child Behaviour Profile – originally developed by Achenbach and Edelbrock (1983) - are extensively used in diagnosis and changes in behaviour as reported by various stakeholders. Such well validated, extensively used scales can be used in diagnosis as well as for measuring learning and development in various domains, over time. Greater collaboration could develop suitable tools for more regular classroom use.

4.3 Modifying 'mainstream' assessments
As has been outlined in section 3 of this report, all of the countries considered have national and or regional policies for widespread assessment of pupils coupled with legal frameworks for the education of pupils with special needs that result in these pupils being entitled to take national (or regional) assessment that are modified – or accommodated – to their specific needs.

A much cited paper about the importance of national or regional level testing for pupils with differing needs is that of Madaus (1988). Madaus uses and defines the term high stakes tests, referring to those assessments whose results are perceived by pupils, teachers, administrators, parents/care-givers or the general public as being used to make important decisions that immediately and directly affect them. High stakes tests can be norm- or criterion-referenced, internal or external in origin (which means that school assessments which may seem to be low stake can become high stake if they become enmeshed in important decisions about pupils and teachers).

For many writers initial diagnostic assessment is "high stakes assessment as it often leads to decisions about placements and provision (see the previous section). However for many authors one of the crucial debates within inclusive settings centres upon modifying or 'accommodating' high stakes assessments that are used for pupil, class or even school evaluation, appraisal and accountability.

Within the context of South African education Pryor and Lubisi (2001) describe an assessment accommodation as an alteration in the way a general assessment is done or test is applied. The purpose of the assessment accommodation is to allow the learner experiencing a barrier to show what they know or can do without the impediment of the barrier. This definition seems to be applicable to other countries – Australia, New Zealand, Canada etc – although different terms for accommodation are often used.

Goodwin (1997) argues that "assessment and inclusion are naturally connected" and that "equity in schooling relies on appropriate assessment". Goodwin's edited book provides a very clear discussion of policy and practice level issues related to providing – what is termed in the USA as – 'alternate assessments'.

Assessment Issues in non-European Countries
Goodwin outlines how standardised testing has dominated USA education system throughout the 20th century and suggests that standardised testing "characterises 80% of all system wide tests used by school districts nation-wide". Goodwin lists what she calls the documented failings of standardised tests: they focus on low level, de-contextualised facts; they provide a fragmented view of a learner; they are incorrectly used to present a whole picture of a learner; most damagingly they are used to drive and direct curriculum and instruction particularly with low achieving students who, Goodwin argues, are the pupils who need the most enriched, not narrowly focussed, instruction.

It is worth noting here that the term alternate assessment is used in the USA in relation to modifying assessments for pupils from different minority and disadvantaged groups – not just those with SEN. However as Byrnes (2004) suggests since the passage of the 1997 Amendments to the Individuals with Disabilities Education Act (IDEA '97) and the No Child Left Behind (NCLB) Act, alternate assessments have received increasing attention in relation to meeting the needs of pupils with special needs.

Kleinert et al (2002) suggest that the key questions in relation to alternate assessments are: how do teachers meet the responsibilities of assessing pupils with special needs in programmes aligned with 'standards' and the assessment requirements of federal legislation? How do teachers ensure that all pupils with disabilities achieve in the general education curriculum to the best extent possible? How do teachers decide which pupils need alternate assessments? How do teachers design effective alternate assessments?

Kleinert et al as well as numerous other authors (for example Ysseldyke and Olsen, 1999) give practical advice on how these questions may be answered. In particular there are numerous examples of suggestions for alternative approaches to assessing pupils: Kirk et al (1989) discuss the relative merits of using individual, peer, self and small group assessments as well as involving parents in assessment and using portfolios of work. Elliott and Marquart (2004) discuss the effects of extended time in tests as an accommodation.

However, there appears to be relatively little research evidence at present into the effectiveness of alternate assessments. One exception to this is Browder et al (2003) who completed a review of 19 data based studies where professionals document the impact that alternate assessment is having on pupils, instruction as well as curriculum development and school reform. These research pieces all focused upon pupils with disabilities – particularly significant learning disabilities.

By examining the data available Browder et al conclude that "there are insufficient data to report with confidence that alternate assessment will live up to its promises". They do however clearly identify a number of unaddressed issues posed by the use of alternate assessments: what are the accepted standards for the general assessment? Is the associated alternate assessment based on extensions of these academic standards, additional functional standards, or both? What are the eligibility criteria to participate in alternate assessment, and how does participation influence both pupil and system accountability? What formats or methods should be
considered for use in alternate assessment? How are the alternate assessments to be scored?

These unresolved issues are echoed in the statement on ensuring equity in alternative assessments issued by the North Central Regional Educational Laboratory. (http://www.ncrel.org/sdrs/areas/as0cont.htm) who argue that in order to "protect students from unfair and damaging interpretations and to provide parents and communities with an accurate overall picture of student achievement, educators need to be aware of the promise and the challenges inherent in using alternate assessment practices for high-stakes decisions (such as student retention, promotion, graduation, and assignment to particular instructional groups), which have profound consequences for the students affected."

Browder et al identify key areas for further development in the use of alternate assessment – improved teacher training in conducting assessments; linking alternative assessment to curricula and teaching programmes and – perhaps more crucially – linking assessment to Individual Education Plans (IEPs). These last two points are considered below whilst the issue of improved teacher training is considered is section 4.4.3.

4.3.1 Assessment Linked to Teaching Programmes

Stanford and Reeves (2005) state that "a fundamental truth in effective teaching is that assessment strategies, both formal and informal, must help the teacher determine the most appropriate instruction, in addition to assessing progress". This crucial link between teaching programmes and assessment is not just highlighted by researchers, but is also integral with USA legislation.

The Individuals with Disabilities Education Act (IDEA) 1997 regulations and amendments from the U. S. Department of Education (1999), states that educators must assess learners with disabilities in the general education curriculum and they must show progress. This guideline goes on to suggest that educators must develop instruction that is specifically designed to meet the needs of learners with disabilities. Also, the IEP requires that educators consider how a learner will participate in state-wide and district-wide assessments.

Discussions about locating achievement within the curriculum and making the goals of the IEP compatible with recognised standards are common. Pugach & Warger (2001) suggest these concerns focus attention on the performance and progress of all learners.

Whilst in some areas of social science research (for example the health sector) meta-analysis is very much the flavour of the decade, such studies are rarer in education; no doubt because fewer studies have been done that can be included in a meta-analysis. The meta-analysis undertaken by Fuchs and Fuchs in 1986 broke new ground and is worth referring to: this was a review of 21 separate research studies of students from pre-school to 12th Grade. The main focus was on work for children with ‘mild disabilities’ and all studies involved an experimental and a control group. The meta-analysis discusses the potential benefits of curriculum-based measurement (CBM or what may also be termed formative assessment) as a positive means of supporting their learning.
Their findings – both the 1986 analysis and later work in 1999 - on the benefits of CBM for teaching and learning with pupils with different forms of disabilities is supported in more discursive work conducted by Green (2001) who looks at CBM in relation to supporting oral reading development; Deno (1997) who discusses different perspectives of progress monitoring and Howell and Nollett (2000) who discuss different approaches and tools for assessment within the context of curriculum based measurement.

Linked, to the ideas of alternate assessment and CBM is the discussion of 'performance assessment' defined by the U.S. Congress, Office of Technology Assessment (OTA) (1992), as "testing methods that require students to create an answer or product that demonstrates their knowledge and skills." Performance assessment can be a type of alternate assessment or it can be directly linked to CBM.

A source of summary information on performance assessment in relation to mainstream and alternate assessments is provided within a number of the ERIC open-access review digests (www.eric.ed.gov). Connecting Performance Assessment to Instruction: A Comparison of Behavioral Assessment, Mastery Learning, Curriculum-Based Measurement, and Performance Assessment (ERIC Digest E530, 1995) and Creating Meaningful Performance Assessments (ERIC Digest E531, 1995) both present interesting information.

This digests argue that assessment linked to programmes of instruction can enhance teaching as when teachers are better informed of the learning progress and difficulties of their pupils, they can make better decisions about what a pupil needs to learn next and how to teach that material in a manner that will maximize the pupils learning. By considering various research pieces, seven essential criteria of effective assessment that supports teaching are highlighted: 1. Measure important learning outcomes. 2. Address all purposes of assessment linked to instructional, placement, monitoring and diagnostic decision-making. 3. Provide clear descriptions of pupil performance that can be linked to instructional actions. 4. Be compatible with a variety of instructional models. 5. Be easily administered, scored, and interpreted by teachers. 6. Communicate the goals of learning to teachers and pupils. 7. Generate accurate, meaningful information (i.e., be reliable and valid).

In the first digest, a comparison is made of four approaches to assessment linked to teaching programmes: behavioural assessment approaches; CMB; master learning and performance assessment. This digest suggests that behavioural assessment, mastery approaches and CBM meet some of the seven criteria for effective assessment, but that all of the criteria are met by performance assessment.

In the second digest (531) the features of performance assessment are explored in more depth. This review suggest that performance assessment is best understood as a "continuum of assessment formats ranging from the simplest student-constructed responses to comprehensive demonstrations or collections of work over time". Whatever format, common features of performance assessment involve: the pupil's construction - rather than selection - of a response that is observable either directly or indirectly via a permanent product; direct observation of pupil behaviour on tasks resembling those commonly required for functioning in the world outside school;
authenticity in that the nature of the task and context in which the assessment occurs is relevant and represents "real world" problems or issues.

Performance assessment is closely tied in with what Whitaker, Salend and Dehaney (2001) describe as instructional rubrics that specify the qualities associated with different levels of proficiency for assessing pupils’ performance on a specific task.

The ERIC digest concludes that performance assessment "represents a vision that can shape the future direction of classroom-based assessment, but it requires much additional scrutiny and development before it can fulfil its promise". One of the outstanding issues is perhaps best highlighted by Olson (2003) who suggests that whilst it is clear that assessment drives instruction, it is often the case that assessments sometimes lack the primary goal of guiding instructional decisions.

4.3.2 Assessment linked to an Individual Education Plan (or similar)

The ERIC research digests mentioned above suggest that teachers make three types of decisions using assessment evidence: teaching/instructional placement decisions what the pupil knows and where he or she should be in and instructional sequence i.e. what to teach next; formative evaluation decisions, using information to monitor a pupil's learning whilst a teaching programme is underway, evaluate how quickly progress is being made, whether the programme is effective and whether a change in the is needed to promote the pupil's learning; diagnostic decisions regarding which specific difficulties account for a pupil's inadequate progress so the teacher can design more effective teaching plans.

As early as 1995 writers were describing the benefits of linking such assessment information to an Individual Education Plan or Programme (IEP) McCoy (1995) and Ysseldyke and Algozzine (1995) discuss the instructional principles and practice of linking assessment and with IEPs as well as the potential benefits for teachers and pupils themselves.

Shriner and Stefano (2003) argue that the individualized education programme (IEP) is an important part of the process of decision-making concerning a pupil's participation and accommodation in assessment. Their study describes how teacher training was found to increase the quality and extent of participation and accommodation documentation on the IEP. However, direct links between what was documented on the IEP and what happened during actual assessments were highly variable. Although pupils' IEPs appeared to reflect individualised decision-making about assessment, Shriner and Stefano argue that political and logistical factors appeared to limit the utility of the IEP and interfered with its actual implementation particularly in relation to assessment procedures.

It could be suggested that the potential benefits of specifying and linking assessment procedures and information to a pupil's IEP can be limited by the demands of 'high-stakes' generalised assessments.

4.4 Participants in Inclusive Assessment

In all countries considered in this review, papers and reports have been identified which identify the importance of various stakeholders as potential assessors, or participants in the assessment process. The second half of Meyen’s (1995) edited
book “Educating Students with Mild Disabilities” contains useful chapters on research and assessment and is intended for practitioners; for example Sanchez (1995) offers a contribution in the complex and sensitive area of culturally sensitive assessment for diverse learners and school staff in a multicultural society. Falvey, (1995) provides various edited inputs that support the role of parents and pupils themselves in all aspects of their education – but most particularly, assessment procedures. Hammeken, (1995) uses case studies from teachers parents and pupils themselves to illustrate how instruction and the assessment process can be effectively enriched in inclusive settings by taking full account of all stakeholders' views and inputs.

In the following section the research investigating the potential contributions of three key stakeholders to assessment practice are considered: pupils, parents and teachers.

4.4.1 Pupils
Dorman and Knightley (2005) suggest that on balance, there has been far more research into ‘types’ of assessment and relatively little on pupils’ perceptions of assessment. They suggest that effective assessment in any setting is essentially based on a two-way communication exchange between the assessor (usually the teacher) and the assessed (the pupil). However, as Rogoff (2001) states, how teachers engage pupils in this assessment communication exchange is of crucial importance.

The positive impact of self-assessment on achievement has been demonstrated repeatedly in empirical research in relation to pupils who do not have any form of special need (a clear cut example is that of MacDonald and Boud, 2004).

Wehmeyer et al (2004) present a discussion upon the topic of 'self determination' for pupils with learning disabilities. They are argue that developing self determination – or autonomy in all aspects of learning and behaviour – crucially involves learners being supported to play a central role in their own assessment. They suggest that teachers and parents need to be involved in teaching pupils how to be involved in self assessment – not just as a means of improving the assessment process, but also because it is crucial for the development of a pupils overall learning independence.

Various pieces list pupil self-assessment as a specific strategy to be employed with pupils who experience different forms of difficulty in learning. As early as Samuel (1989) self assessment has been seen as a positive strategy for pupils with special needs. The key point coming from these pieces is that as self-evaluators, pupils must develop a far deeper understanding of what their learning is supposed to achieve. They must understand the aims of the learning and the criteria for success. However, it should be pointed out that successful self-assessment must mesh closely with other efforts to help students take greater responsibility for their own education.

The positive effects of pupils' involvement in peer assessment is often referred to in articles concentrating on mainstream, non-SEN learners (for example Dietel, Herman and Knuth, 1991 and the Counselling Foundation of Canada (2005): http://www.counselling.net/peers/references.html). However, there appears to be relatively less research on peer assessment for pupils with special needs. One
relatively 'old' piece of work is by von Harrison and Reay (1983) who explored the benefits of reciprocal peer tutoring in reading in primary inclusive settings. Their findings in the USA – and later replicated in the UK – demonstrated the positive benefits of all pupils being involved in carefully structured peer tutoring and assessment exercises.

4.4.2 Parents
Any consideration of the role of parents within assessment of their children's learning needs to take into account two potentially conflicting elements: parents can be a rich and valuable source of information about their child that can be used in ongoing assessments to inform learning. However parents - even those of children with special needs - may have pre-conceived ideas about what assessment is and should be which are often formed by personal experience of standardized testing and information from the media regarding educational standards as measured' by norm referenced tests (Robinson, 1997). Harlen and James (1996) suggest that parents – along with the majority of the general community – are most familiar with summative assessment procedures that are used for the purposes of describing learning achieved at different times and especially for the purposes of end point reporting to parents and other interested parties.

In the situation of education being directed by 'customer reaction and satisfaction' the perceptions of parents and guardians have to be taken very seriously. Robinson (1997) argues that: "In order for alternate assessment to permanently replace standardized methods of evaluation, public support must be garnered. Parents head the list of potential supporters".

Involving parents in assessments in effective ways is therefore a challenge, but different approaches to meeting this challenge are evident. A number of papers referring to parents’ perceptions or perspectives on inclusive education have been identified. Leyser and Kirk (2004) surveyed 437 parents in the US using a modified form of the Opinions Relating to Mainstream Scale (ORM) plus additional documents and Johnson and Duffett (2002) used a national telephone survey of 510 parents of children with SEN. In discussing implications for future research these two articles may present possible models for research using the same approaches specifically in relation to parents' involvements in assessment in inclusive settings.

The importance of the parental role in diagnostic assessment is discussed by Grover (2003) who explored the Canadian 'educational' categorical system for pupils with special needs and their relation to mental health diagnoses. Parents wishing to access special education services for their children are generally required to consent to their children being formally assessed. Grover argues that during the diagnosis process, there is a frequent parental lack of understanding of the overlap between the so-called 'educational' special needs category and a mental health diagnosis and this can then lead to the school board proceeding with a special education placement based on a particular category even without parental agreement. Grover discusses the implications of this situation and the possible ways supporting parents during the diagnostic process.

Thurlow (1999) reported on the Parents Engaged in Education Reform (PEER Project) and the role parents need to play in the assessment processes arising from
the USA Individuals with Disabilities Education Act. Thurlow argues that from 1997 onwards states have revised their assessment policies in order to comply with IDEA amendments and ensure participation of all pupils with special needs. The PEER project pushed for parents to become active participants in the development of assessment policies.

Hundt (2002) discusses the use of videotaping pupils' with special needs in their classrooms as a means of involving parents not only in their education generally, but in developing IEPs and assessing developments and progress specifically. Hundt's project demonstrates and number of pros and cons in using video taped evidence, but overall she argues the use of practical, easily accessible methods of information about a child's performance helps the teacher and parent – and the project demonstrated other family members as well - make informed shared judgments about achievement of objectives.

4.4.3 Teachers

The importance of teachers in all aspects of the assessment process could be the subject for a complete review in its own right and all the issues involved in the teachers role cannot be adequately covered here. However in relation to assessment in primary inclusive classrooms, a significant factor needs to be raised for further attention: teachers' training – both in special needs teaching and in specialist assessment techniques. This appears to be a crucial aspect for developing teacher attitudes and skills that supports successful inclusion (Kemp and Carter, 2005).

Perlman (1996) highlights the current demands on professionals engaged in assessing students in inclusive settings: develop appropriate alternate assessments, aligned with IEPs, as well as state and local standards; set standards for alternate assessments; decide which accommodations are appropriate and fair; report results of alternate assessments; aggregate results of regular and alternate assessments; interpret results of norm-referenced tests given under non-standard conditions. Perlman concludes that the demands placed upon 'assessment professionals' far exceeds their ability to comply with the requirements set by the Federal government.

Hattie (2005) argues that if assessment evidence is going to be used to effectively support teaching and learning there is a need to move teachers' thinking away from data towards interpretations, from student outcomes to teaching successes and improvements and from accountability models located about schools to located first and foremost in the classroom. This line of argument calls for training that addresses teachers' attitudes as well as their skills.

Gearheart, Weishahn, and Gearheart (1992) suggest that three general types of knowledge are necessary for teachers to be effective in teaching pupils with special needs: an understanding of the history of education for individuals with disabilities and the legislation that supports service delivery; (specific information about disabilities and how the characteristics of each disability impact on a pupil's instructional needs (including impacts upon different forms of assessment); knowledge of and skills in the assessment, and teaching and learning strategies that are effective with special needs pupils. They suggest that such background knowledge is important for forming the necessary attitudes for later specific skill acquisition.
McNally, Cole and Waugh (2001) discuss the positive effects of using vignettes within in-service training sessions to examine and challenge teachers’ attitudes to additional classroom support for students with mild and severe intellectual disabilities included in mainstream classrooms.

Although not specifically focusing upon assessment skills or practice, Nougaret, Scruggs and Mastropieri (2005) conducted an empirical research study into the effects of teacher education upon practising special education teachers. Their results were conclusive – both independent assessors and self-assessment of teachers' practice demonstrated that trained special educators were more skilled than peers without formal training. The conclusions drawn from this project related to US Federal as well as State level Governments' responsibility to ensure the availability of effective, quality training for special education teachers.

Destafano, Shriner and Lloyd’s (2001) study into the effectiveness of teachers' decision making about pupils participating in regional or USA National assessments demonstrates that training in how to make assessment judgements and subsequent accommodations resulted in them being not able to more effectively involve pupils in large scale assessments, but also tailor assessment to instruction far more successfully in all aspects of the curriculum.

Perhaps one of the strongest arguments for teacher training in assessment techniques comes from the work of Browder et al (2005) who investigated if specific, intensive teacher training on differentiating teaching and assessment – for example, use of IEPs, modifying teaching programmes etc – had any impact on pupils' scores in state-wide assessment scores. They found that pupils’ alternate assessment scores improved when teachers received training on instructional practices. The authors argue this study provides clear evidence that alternate assessment scores can be improved through training teachers in different instructional variables.

4.5 School Organisation
Perrone (1997) suggests that the structures for wide scale assessment in the USA – mainly norm and criterion referenced tests that 'sample' pupils' learning – have lead to "low levels of teaching and learning" but have also impacted on the ways schools organise themselves in attempts to meet external accountability demands.

Cumming and Maxwell (2004) conducted a study that explored common themes concerning assessment practice in Australian education (across the six states and two territories). They identified ten themes; two of these are specially related to secondary education - increasing vocational education delivery within schooling and multiple pathways to future study and careers – but the majority refer to factors either internal or external to the organisation of the school that impacts upon subsequent teacher practice. These key aspects were identified as: a strong curriculum base influencing and directing assessment in the classroom; the incorporation of school-based assessment in all certification; the impact of an external preference for standards-referenced assessment; the degree of respect for teacher judgements in making assessments; the role of school-based assessment in the compulsory years of schooling; national, regional and local moves towards outcomes-based frameworks; issues surrounding the collection and use of national benchmark data;
and finally equity issues. Cumming and Maxwell suggest that the interplay of these factors is crucial to directing the structures that dictate assessment in all classrooms.

4.6 The Need for Research
As a result of conducting this small-scale review, two issues regarding empirical research into assessment in primary inclusive settings have become apparent. The first is that – as with other areas of educational research and in common with the situation in a number of European countries – none of the non-European countries surveyed had a recognised 'knowledge base' where research information relating to this topic was collected so as to add to the cumulative understanding of the topic. There are examples of some 'resource banks' of National level information – for example Educational Assessment Australia: http://www.etc.unsw.edu.au/ - supported by Governments, but these are usually generalist and do not specifically focus on research or SNE related assessment research. Specialist information services are more often than not linked to NGOs or charitable organisations such as Learning Disabilities on-line in the USA: http://www.ldonline.org/ which provides advice and research information on assessment issues related to children with different forms of learning disabilities.

The second issue is that although there are undoubtedly some interesting, well-executed studies relating to assessment in primary inclusive settings, but few are more that case studies of single schools and the majority involve a very small number of subjects. Others are ‘snap shots’ which do not allow any long term view of how assessment performs over a period of time and particularly how assessment can contribute to the educational performance of pupils in inclusive settings. They may well be excellent approaches to assessment, but they seem to have been constructed out of experience rather than empirical evidence. The findings may be of great interest, but impossible to be generalised and used confidently for a wider audience except in an indicative way.

Two possible reasons for this scenario can be put forward for this: firstly, despite the vast investments in education, special needs education and assessment, the funding available for research in this area appears very limited, particularly for longitudinal studies. This issue and other funding issues are discussed by Rennie (1997) in relation to the situation in Australian special education, however this issue appears to be international in nature.

The second possible reason for the limited evidenced based research on inclusive assessment may actually be more of a question rather than a statement: is this a topic which can be usefully examined using traditional research methodologies? A problem for many practitioners is knowing the criteria on which research publications should be judged. Two 2005 papers in ‘Exceptional Children’ consider the position of evidence based research in special education and provide ways to evaluate evidence based studies in special education. Horner et al (2005) consider the use of single subject research to identify evidence-based practice. They suggest that single subject research plays an important role in the development of evidence-based practice in special education, but that identifying whether the research is valid for consideration to other contexts is an outstanding issue.
Gersten et al (2005) present quality indicators for experimental and quasi-experimental studies for special education. These indicators are intended to evaluate completed research write-ups and organize critical issues for consideration in research. The authors suggest that there is a need for a standard for determining whether practice in special education can be considered evidence-based or not and that such standards such be discussed, reviewed and adopted by the field of special education.

A further question for consideration is whether 'traditional' evidenced based research so far generated the sorts of information that impacts upon policy and practice in inclusive assessment? Certainly within Europe there also appears to be a widening debate of the fact that SNE specific research methodologies may already be emerging. Porter and Lacey (2005) describe a research methodology, requiring a specialist knowledge base as well as specialist skills and approaches that are specific to the sector. Whilst the idea of a specialist research methodology for special needs education may – paradoxically – be considered to be somewhat in contradiction to the philosophy of inclusion, is there perhaps a need for new approaches to research in this field, which account for the very individualised nature of the contexts being examined? As Hopkins and Harris (1997) clearly point out, the distinctiveness of schools and classrooms is located in their internal functioning and as no school, class, teacher or even learner functions in the same way, their uniqueness is 'guaranteed' even if it is problematic. Or perhaps the less 'traditional', non-empirical evidence emerging in case studies, discussion papers etc needs to be looked at again and in new ways as a valid source of information to guide assessment practice?
5. CONCLUSIONS

In 1996, the UNESCO International Commission on Education for the Twenty-first Century published its report *Learning: the Treasure Within*. The report aimed to present a vision of lifelong education. During the Asia-Pacific Regional Conference to consider the implications of the report, seven tensions for education in the 21st century were identified. Of these at least three involve assessment related issues:

1. The tension between *long-term* and *short-term* considerations: resisting the pressure to find quick answers and ready solutions to problems that call for a carefully considered and negotiated strategy of reform;
2. The tension between *competition* and *equality of opportunity*: reconciling competition (which provides motivation and incentives) and co-operation, combined with equity and social justice for all;
3. The tension between the *expansion of knowledge* and the *capacity of individuals to assimilate it*: ensuring that curricula encompass the relevant foundational knowledge and that pedagogy includes learning how to learn.

Recent decades have witnessed significant developments in the field of educational assessment. However, new approaches to the assessment of pupil achievement have been complemented by the increasing prominence of educational assessment as a policy issue. In particular, there has been a wide scale growth of interest in types of assessment that are seen to promote, as well as measure, standards and quality. Goodwin (1997) suggests that educationalists are witnessing "calls for increased standardisation in the form of common curriculum supported by a National testing system [which] are competing with equally strident calls for highly contextualised assessments employing multiple measures". This fact has profound implications for individual learners, educational institutions and the educational system itself.

Whilst not necessarily primary education focused, the likely effects of international, comparative studies of educational standards – most notable the OECD PISA studies ([http://www.pisa.oecd.org/](http://www.pisa.oecd.org/)) - cannot be ignored. Assessment evidence is very much placed within the public domain for purposes of comparisons and this linked to the national level pressures for greater accountability in education leads to an increasing emphasis on pupil performance as a factor in directing educational policy making. Three effects appear to be evident:

- The development and use of ‘content standards’ as the basis of assessment and accountability;
- The dual emphasis of setting demanding ‘performance standards’ for education that may or may not support the aim of including all pupils in mainstream education;
- The attachment of ‘high-stakes accountability mechanisms’ to assessment evidence in relation to schools, teaching programmes, teachers and sometimes pupils themselves.

One of the key concerns associated with these factors is a questioning of whether common standards for all pupils actually improves educational standards overall. Some writers suggest there may be the consequence of a narrowing of educational experiences for most pupils, accompanied by ‘recognised failure’ for some and limit the development of special talents in others. Certainly there is past evidence that, in particular, standardized exam driven school improvement efforts do not lead to
overall improvements in education (for example the American Educational Reform Association - special conference on national testing, 1991).

Many writers are calling for new assessment practices to be used to support pupil learning, guide educational improvement and enhance equity for all pupils. For many of these writers, large scale ‘testing’ may short-circuit these fundamental aims and possibilities. These views seem to coalesce into the perception that for many pupils what is required is school reform, not more ‘testing’ and that more test scores will not produce educational improvement. Resources could be spent on helping teachers teach and pupils learn, not on further sorting and ranking pupils, schools, regions and even countries.

A main conclusion of this review is the observation that one source of information and examples of best practice in assessment comes from work with pupils who have special educational needs. Earl and LeMahieu (1997) calls for more emphasis upon the concept of ‘assessment as learning’ if the desired educational reforms and improvements are to be realised. Assessment as (or for) learning allows teachers to use their judgment about a pupil’s understanding to inform the teaching process and to determine what to do for individual pupils. These aims and purposes of assessment are exactly what can be identified as being best practice assessment within primary inclusive settings.

Further considerations in support of the argument that best inclusive assessment practice can give a lead to general assessment practice are provided by Van Kraayenoord (2003) who suggests that when teachers and administrators in schools begin to have discussions about inclusion the discussions often lead to two conclusions about how schools must change: the change must address the needs of all pupils, not just those with special needs and ‘school improvement’ replaces references to inclusion. Van Kraayenoord argues that inclusion leads to teachers and administrators beginning to rethink and restructure their teaching – including their assessment practice - in order to improve the education of all pupils.

A further conclusion of this review is that assessment policy – both general and also SEN related - in countries appears to be increasingly driven more by demands for external accountability and less by evidence about best practice in teaching and learning. How good assessment practice can be used to inform policy is usefully considered by Darling-Hammond and Faulk (1997) who consider what kinds of assessment policies are needed to support teaching and learning for all pupils and conclude that there are a number of key principles that must underpin assessment policies:
- Assessment should be based upon standards for learning;
- Performance of understanding to be assessed should be represented in ‘authentic’ and appropriate ways;
- Assessment should be embedded within the curriculum and teaching;
- Assessment should aim to provide multiple forms of evidence about pupils’ learning;
- Educational standards should be evaluated, but not by imposing standardisation;
- The people who carry out assessments (i.e. teachers) should be the people who design, judge and then report on assessment outcomes;
- ‘Innovators’ and best practice should be used to inform the policy and lead the assessment system;
- Professional development should be paramount in order for teachers and schools to explore and implement new assessment methods that can inform policy;
- School performance should be evaluated using information on their practice as well as longitudinal (not snap-shot) assessment evidence about individual pupils. These points appear to give a good lead in considering how assessment policy can draw upon, rather than militate against innovative inclusive assessment practice.

Readers of this review will obviously want to draw their own conclusions from the information presented in the preceding sections. However it is hoped that this information, as well as the points raised above will stimulate discussion and thinking regarding the issues faced by non-European countries and how these compare and or contrast with the policy and practice situations of countries taking part in the Agency Assessment project.
REFERENCES


Alberta Territory (2000) *Shaping the Future for Students with Special Needs: A review of Special Education in Alberta*

American Educational Reform Association *Special Conference on National Testing Phi Delta Kappan*, November, 1991


www.eric.ed.gov accessed January 2005
www.eric.ed.gov accessed January 2005
Hopkins, D. and Harris A. (1997) Improving the Quality of Education for All Support for Learning Vol. 12 No. 4 pp 147 – 151


The Counselling Foundation of Canada: http://www.counselling.net/peers/references.html accessed March 2005


OFFICIAL WEBSITES CONSULTED

Australia

Canada
Council of Ministers of Education (CMEC) http://www.cmec.ca/
Council of the Ministers of Education: http://www.cmec.ca/educmin.en.stm
Ministries of Education: http://www.cmec.ca/saip/indexe.stm
School Achievement Indicators Program (SAIP): http://www.cmec.ca/saip/indexe.stm

New Zealand
South Africa
South African Education Department information on special and inclusive education:

United States of America
Federal Department for Education: http://www.ed.gov/index.jhtml
Office of Special Education and Rehabilitative Services (OSERS):
http://www.ed.gov/about/offices/list/osers/index.html?src=oc
National Assessment of Educational Progress (NAEP):
http://nces.ed.gov/nationsreportcard/
Individuals with Disabilities Education Act (IDEA 1997) and the Individuals with Disabilities Education Improvement Act 2004:
National Center on Educational Outcomes (NCEO):
http://education.umn.edu/nceo/
No Child Left Behind Act (NCLB):
This document has been prepared as part of the Agency Assessment Project by NAREM Associates UK in co-operation with the Agency project team.

This is not an in-depth study of the field, rather this small-scale investigation has aimed to present an overview of key issues in Assessment policy and practice in non-European (English speaking) countries.