Literature Review of Pupils with Additional Support Needs

Final Report to the Scottish Executive Education Department

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SECTION 1: INTRODUCTION AND DESIGN OF THE REVIEW

Policy Background

This literature review has the following broad elements:

- A comparative review of definitions of children with special/additional support needs and definitions of types of placement.
- A review of approaches to pedagogy and curriculum for children with special/additional support needs.

In the following paragraphs, we provide an overview of the broad policy context and the methods we have used in undertaking this review.

Comparisons of definitions and placement patterns
Following the passage of the Education (Additional Support for Learning) (Scotland) Act 2004, the definition of additional support needs used in Scotland now encompasses all children who have difficulty in learning for whatever reason. This broader definition clearly has implications for understanding longitudinal data on the identification and placement of children with additional support needs.

Changing practice in Scotland also has implications for the way in which international comparisons are made. Research teams in Europe (e.g. European Agency for Development in Special Needs Education (EADSNE, 2003b; 2000) and internationally (OECD, 2000; OECD, 2005) have sought to compare definitions across countries, to discuss policy differences and to gather comparable statistics. They have found comparisons difficult, as the definitions vary even within nations (the UK being an example of this) as well as considerable variation across countries.

Such comparative difficulties are summarised by Evans (2003). He notes that 'special educational needs' is limited in some countries to students with disabilities, while in others the category extends to social disadvantage, those with minority ethnic backgrounds and/or gifted children. Comparisons are further complicated by different definitions of particular categories within 'special educational needs', and the number of categories used to gather statistical data. As a response, the OECD reports required agreement across countries to re-allocate their national categories into three types:

A includes those students whose disability clearly arises from organic impairment
B refers to those students who have learning difficulties that may well be acquired for example through unsatisfactory experiences in and out of school and
C to those who have difficulties because of social disadvantage.

Existing work comparing definitions, statistics and their policy and practice ramifications forms the starting point for this review. However, different countries are dealt with in different ways within specific reviews, and there is no single source which contains comparable material across the board.

It is also important to understand the way in which funding models impact on definitions and placements. For example, European research on the impact of special education funding models on patterns of inclusion suggests that in countries where funds are tied to individual children, there is more evidence of strategic behaviour by parents and teachers to secure resources (Meijer, 1999). Thus countries like England, France and Luxemburg, where children with greater 'needs' have greater funding, have more strategic behaviour by parents and teachers to secure resources and tend to spend more funds on litigation procedures.

Curriculum and pedagogy for children with special/additional support needs
In Scotland, attempts to establish a suitable curriculum for pupils with additional support needs have been marked by, on the one hand, a desire to ensure the entitlement of those pupils within a common curriculum framework whilst, on the other hand, ensuring appropriate and targeted support for individual pupils. Issues of commonality in the curriculum

framework, and of breadth and balance in the curricular experience of pupils with special educational needs, were addressed by the introduction in the early 1990s of the 5-14 Curriculum with its accompanying 5-14 Support for Learning pack. This material offered teachers advice both generic and specific to particular kinds of special educational needs, including pupils with severe and complex learning difficulties, social, emotional and behavioural difficulties and sensory impairments. Five strategies for customizing the curriculum were endorsed: differentiation, adaptation, enhancement, enrichment and elaboration. These strategies would enable teachers to plan a suitable curriculum for individual pupils whilst ensuring that pupils' learning was framed by the national curriculum guidelines. Individualised education programmes (IEPs) were identified as the most appropriate curriculum planning mechanism.

The Warnock Report (DES, 1978) referred to 'educational programmes for individual children' (11.15: 209) and emphasised the importance of planning long- and short-term learning objectives for all children with special educational needs (SEN) in a range of curricular domains. More recently in Scotland, IEPs have become a mechanism for raising and monitoring standards, as well as a tool for ensuring the curriculum entitlement and progression of pupils with SEN. Following the framework set out in the paper *Setting Standards – Raising Standards in Schools* (SOED, 1998), it was decided to set targets for schools in relation to the 5 – 14 programme and SQA awards and in 1998 support packs were produced and circulated to all schools. The target-setting initiative was intended to include children with SEN and the paper *Raising Standards: Setting Targets for Pupils with Special Educational Needs* (SOEID, 1999) described how this was to be done. In November 1999, a support pack in relation to special educational needs was produced and circulated to all schools (*Raising Standards – Setting Targets Support Pack: Special Educational Needs*, SEED, 1999).

The support pack provided to schools clarified the purpose of target-setting as a means of improving planning, assisting with self-evaluation and focusing schools on key aspects of their provision (learning and teaching, programmes of study, organization and management, use of certification). Advice was given about which pupils should have IEPs with targets. It was expected that IEPs should be opened for all children in special schools and units and all children with Records of Needs in mainstream schools. In addition, children in mainstream schools who did not have a Record of Needs but who required 'significant, planned intervention', as set out in the *Manual of Good Practice* (SOEID, 1998) should have IEPs with targets. It was recommended that targets should be set in one or more of the following curricular areas: communication and language, numeracy, personal and social development and that all targets should be SMART – specific, measurable, achievable, relevant and timed.

Under the new additional support for learning legislation, IEPs will continue to be used for children with additional support needs. A child or young person may require a co-ordinated support plan if they have enduring (i.e. likely to last more than a year) additional support needs arising from one or more complex factors or multiple factors, and which require support by the education authority and one or more appropriate agencies (see page 47 of the *Code of Practice* (SEED, 2005) for further details on the criteria to be used in deciding which children require a co-ordinated support plan). All children with additional support needs will have a curriculum framed by the values, purposes and principles set out in *A Curriculum for Excellence* (http://www.scotland.gov.uk/library5/education/cerv-00.asp), a framework which seeks to provide for the first time for all children and young people from 3 to 18. The details of the new curriculum have yet to be worked out, and this review will contribute by summarising information on best practice in relation to pedagogy and curriculum for children with additional support needs.

Research Aims

As stated in the project specification, the aim of the project is to review:

(1) the definitions of special/additional support needs employed in different countries
(2) the placement patterns of children with particular types of difficulties in different countries and

(3) curriculum and pedagogy for children with special/additional support needs in different countries (note: it is very difficult to separate out curriculum and pedagogy, and this review will consider both).

Specific project objectives include the following:

- To provide an overview of definitions of additional/special educational needs in a range of countries including Europe, USA, New Zealand and Australia. The study will also explore how children with complex or profound needs are defined in a range of countries.
- To outline how data on additional support needs/special educational needs is collected by these countries
- To summarise each of the countries' policies and practices of working with pupils with additional/special support needs, especially those with complex difficulties, including placement patterns
- To provide a summary of research into effective teaching and learning techniques that are effective with those who have complex additional support needs, to encourage lateral and vertical progression.

Research Methods

The following methods were used:

Review of Scottish, UK and international policy and statistics
The research summarises findings from existing Scottish, UK and international policy and statistical reviews, focusing on countries with similarly developed systems of special educational needs, including Western Europe and North America.

Review of the Scottish, UK and international academic literature
A review of the Scottish, UK and international academic literature was undertaken to identify:
(a) Factors influencing patterns of identification and placement of pupils with additional/special educational needs.
(b) Curricular and pedagogical approaches employed in different national contexts
(c) Evidence of the effectiveness of particular curricular/pedagogical approaches, including opportunities for progression.

Electronic databases (including the British Education Research Index, ERIC, Medline, Social Science Citation Index) were searched using appropriate keywords. The literature search was restricted to English language publications and work conducted over the past 5 years, although influential texts from previous years will also be considered. Key websites were consulted, such as the OECD, Eurydice and EADSNE, to identify all relevant information and publications. The 'grey' literature was also examined, including reports of evaluations and policy reviews conducted by practitioner or policy bodies which may not be in the public domain. In analysing the literature gathered, an initial classification was done of each relevant resource, by type (e.g. evaluative studies, narrative accounts, review articles, background papers etc.) and by topic.

Interviews with international experts
The researchers used their extensive international networks to identify individuals (administrators, policy makers and academics) in selected countries to interview in order to provide a commentary on the identified statistical, policy and practices issues in their particular countries. These interviews were used to test the hypotheses which the researchers have developed in relation to specific policy influences and drivers, and to verify the way in which stated policies and practices actually operate at grass roots level. In addition to the other constituent parts of the UK, countries where interviews were conducted included the USA, Belgium (Flanders), Sweden and Greece. These interviews took place by e-mail and telephone.

Interviews with Scottish experts

Thirteen interviews were conducted in Scotland with experts in particular 'types' of learning difficulty to explore the curricular and pedagogical adaptations which might be required for that particular group.

Structure of the report

The report is structured as follows: **Section 2** presents data drawn from international sources on categorisations of particular types of difficulty and disability in different countries, placement patterns and approaches to resource allocation. **Section 3** presents case studies of five countries, examining more closely the legal and policy context underpinning the identification and placement of children with particular difficulties, the relationship of the system of special needs education to the mainstream education system, the resourcing of additional provision and the nature of specialist input including the key professionals involved and their training. **Section 4** focuses on the provision for children with particular types of difficulty in Scotland. **Section 5** draws together findings from the different sections and draws some final conclusions.

SECTION 2: THE IDENTIFICATION AND PLACEMENT OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS: SOME INTERNATIONAL COMPARISONS

Introduction

In this section, we first describe the international comparative studies on the identification and placement of children with special educational needs and discuss the strengths and weaknesses of their approaches. Essentially, there is a tension between whether countries' definitions are used as a point of comparison and discussion, or whether they are 'smoothed' for the purposes of cross-country comparison. Subsequently, we consider aspects of their findings in relation to identification of pupils with particular impairments, national frameworks and legislation, resource allocation, placement patterns and nature of support.

International comparative studies

The OECD project entitled *Students with Disabilities, Learning Difficulties and Disadvantages* (OECD, 2005) is a significant source for this review, as it has developed cross-country comparisons on definitions and placements in relation to 'special needs education'.

Its latest information was collected through an electronic questionnaire. Twenty-one countries contributed, with regional contributions from certain countries (hence a total of 35 returns). Scotland did not contribute to this survey, and it is important to note that 'UK' data do not include Scotland. We have used the terminology employed by the OECD, although in this case, it is clearly not correct. Interestingly, disaggregated data are reported in relation to the Flemish and French communities of Belgium.

Table 2.1 Countries contributing to the OECD study

Australia AUS	Germany DEU	Norway NOR
Austria AUT	Greece GRC	Poland POL
Belgium (Flemish Community) BEL (Fl.)	Hungary HUN	Portugal PRT
Belgium (French Community) BEL (Fr.)	Iceland ISL	Slovak Republic SVK
Canada Alberta CAN (Alb.)	Ireland IRL	Spain ESP
Canada British Columbia CAN (BC)	Italy ITA	Sweden SWE
Canada New Brunswick CAN (NB)	Japan JPN	Switzerland CHE
Canada Saskatchewan CAN (SK)	Korea KOR	Turkey TUR
Czech Republic CZE	Luxembourg LUX	United Kingdom (Eng.) GBR
Denmark DNK	Mexico MEX	United States USA
Finland FIN	Netherlands NLD	Norway NOR
France FRA	New Zealand NZL	

The questionnaire asked for information from 2000/01. The exceptions were:

- Data for 1999/2000 for Hungary and Mexico
- Data for 2001/2002 for Canada New Brunswick and Greece
- Sweden only provided qualitative data

In fact, the data from the questionnaires are far from comprehensive across countries, with certain aspects better documented than others. The OECD maintains country data on its website, at www.oecd.org/edu/equity/senddd. Most of the country data, however, refers to 1998/99; the OECD (2005) publication therefore contains more current data. In due course, the OECD promises to provide more recent data, which could be a substantial future resource for the Scottish Executive.

The European Agency for Development in Special Needs Education (EADSNE) also provides overview information, contributed through national reports, questionnaires and practical examples. Two of recent cross-country reports are salient for this review:

- Special Education across Europe in 2003: Trends in provision in 18 European countries (EADSNE, 2003b)
- Special Needs Education in Europe: Thematic Publication (EADSNE, 2003c)

The 18 countries in 2003c are:

Austria	Belgium (Flemish and French Communities)	Denmark
England and Wales	Finland	France
Germany	Greece	Iceland
Ireland	Italy	Luxembourg
The Netherlands	Norway	Portugal
Spain	Sweden	Switzerland

As well as the above countries, the 2003c publication refers to information from:

Cyprus	Czech Republic	Estonia
Hungary	Latvia	Lichtenstein
Lithuania	Slovakia	Slovenia

These two reports in fact largely duplicate themselves in their comparative text; they only differ in 2003c providing country by country information, while 2003c does include the broader range of countries and additional topics (e.g. funding).

Definitions

The EADSNE publications do not seek to reconcile definitions of 'special educational needs' into common categories across countries, but rather use difference as discussion points.

In contrast, the OECD project decided that countries' own categorisation of 'special educational needs' could not be the basis for comparison, due to such differences. The project thus devised its own three-fold categorisation:

A. *Cross-national category "A/Disabilities*": students with disabilities or impairments viewed in medical terms as organic disorders attributable to organic pathologies (e.g. in relation to sensory, motor or neurological defects). The educational need is considered to arise primarily from problems attributable to these disabilities.

B. *Cross-national category "B/Difficulties"*: students with behavioural or emotional disorders, or specific difficulties in learning. The educational need is considered to arise primarily from problems in the interaction between the student and the educational context.

C. *Cross-national category "C/Disadvantages"*: students with disadvantages arising primarily from socio-economic, cultural, and/or linguistic factors. The educational need is to compensate for the disadvantages attributable to these factors. (OECD 2005 p.14)

Florian and colleagues (2006) criticise this classification as one-dimensional. For example, there is a presumption that children can be classified in only one category: e.g. a child who is blind (category A (disabilities)) will not also be an immigrant (category C (disadvantages)).. They also criticise the classification for failing to put the categories into context by countries' broader demographic data (and one might add socio-economic data as well); this might be particularly relevant for category C (disadvantages).

The OECD report notes that most countries find it easiest to contribute data in relation to category A (disabilities), but many countries find it less easy to contribute data in relation to categories B (difficulties) and C (disadvantages). This could be due to policy decisions (i.e.

there is no focus on particular disadvantaged groups) or data collection (i.e. there may be resources directed towards disadvantaged groups, but data are not collected on them). Such differences are demonstrated by the following table from the 2005 publication:

Table 2.2 Classification of nationally gathered categories used in collecting data within the national definition of special educational needs

Countries	Disability categories only	Disability categories plus disadvantaged students	Disability categories plus gifted and talented students	Essentially non categorical systems
Austria	1			
Belgium (Fl.)	1			
Belgium (Fr.)	1			
Canada (Alb)			1	
Canada (BC)			1	
Canada (NB)	1			
Canada (SK)	1			
Czech Republic		1		
Denmark				1
Finland	1			
France	1			
Germany	1			
Greece		1*		
Hungary	1			
Italy	1			
Ireland		1*		
Japan		1*		
Korea	1			
Luxembourg	1			
Mexico			1	
Netherlands	1			
New Zealand		1		
Norway				1
Poland		1		
Portugal	1			
Slovak Republic		1		
Spain			1**	
Sweden		1		
Switzerland		1*		
Turkey			1**	
United Kingdom (Eng.)				1
United States	1			

This table combines 1996, 1999 and 2001 data.
*Includes learning difficulties linked to linguistic barriers or disadvantage associated with ethnic groupings.
**Includes disadvantaged students.

Denmark and the UK (England), in this survey, do not take a categorical approach. Denmark does make a distinction between more extensive special needs (about 1%) and those with less extensive needs, including those with disadvantages (about 12%). The OECD notes that England is now collecting data through categories, and the next book edition will contain such information. (2005 p.24)

The 2005 publication provides information on each country's own definitions, and how these fit into the OECD categories. Of note are:

- The number of national categories varies considerable: from 2 for England to 19 in Switzerland. Most countries have 12 or 13 categories.
- Nine sub-categories can be found in virtually every country. These are:
    - Students who are blind or partially sighted
    - Students who are deaf or partially hearing
    - Students with emotional and behavioural difficulties
    - Students with physical disabilities
    - Students with speech and language problems
    - Students who are in hospital
    - Students with a combination of disabilities
    - Students with moderate or severe learning problems
    - Students with specific learning difficulties

  Most of these are contained within category A (disabilities) and none are contained within category C (disadvantages).
- Italy, Japan and Poland identify no categories within category B (difficulties) and Turkey only recognises 'gifted and talented' students within category B.
- Countries differ in whether their disability (A) categories are predominantly determined by diagnosis and/ or medical definitions (e.g. France, Spain and the USA), by what type of education students receive (e.g. in special needs education, Finland; in special schools, Switzerland), or the interaction between the child and their schooling environment (e.g. to some extent, Belgium (Flemish Community), England).
- Certain countries cite IQ scores to define certain categories (France, Greece, Italy, the Netherlands, Slovak Republic and Switzerland)
- Emotional and behavioural problems are not recognised as a separate category in Greece, Hungary, Italy nor Turkey.
- Certain countries have a separate category for autism (Czech Republic, Germany, Poland, Slovak Republic, Turkey and the USA).
- Only Poland has a specific category for children who are in 'danger to addiction'.
- Certain categories are distinguished in countries (e.g. blind students are separated from students with visual impairments) but not in others.

Thus countries differ considerably, as to whether students in certain categories are recognised as receiving additional resources. EADSNE comments, in relation to the countries it covers: "These differences between countries are strongly related to administrative, financial and procedural regulations. They do not reflect variations in incidence and the types of special educational needs between these countries." (EADSNE, 2003c, p.8)
Countries differ the most in relation to category C (disadvantages):

- The most common categories across countries related to students whose first language was not English and/ or who were immigrant, migrant or refugee children.
- Four countries (Belgium (Flemish Community), Germany, Mexico, and Spain) have a category including Travelling children.
- Only Belgium (French Community) and Mexico specify rural areas or areas of small population (respectively).
- Few countries specifically mention socio-economic disadvantage (exceptions include France, Mexico and the Netherlands), although children experiencing such disadvantage may be absorbed within broader categories.
- Few countries specifically include children who offend.

These similarities and differences can be seen visually, through the table below:

Table 2.3: Distribution of individual national categories into 22 general categories used to describe students with disabilities, difficulties and disadvantages

	Visual Impairment	Blindness	Hearing Impairment	Deafness	Emotional, behavioural difficulties	Severe learning problems	Moderate learning problems	Light learning problems	Physical disabilities	Combinatorial disabilities	Specific learning difficulties	Speech and language problems	Hospital	Other Health Problems	Autism	Gifted and talented students	Remedial help	2nd language and mother tongue teaching	Travelling children	Disadvantaged students	Aboriginal and indigenous students	Young offenders
Belgium (Fl.)	x	x	x	x	x	x	x	x	x		x		x	x			x	x	x	x		15
Belgium (Fr.)	x	x	x	x	x	x	x	x	x		x		x					x		x		9
Canada (NB)	x	x	x	x	x	x	x	x	x	x	x	x						x				
Czech Rep.	x	x	x	x	x	x	x		x	x	x	x	x	x	x					x		
Finland	x	x	x	x	x	x	x	x	x		x	x		x			x	x				
France	x	x	x	x		x	x		x	x	x	x		x				x		x		
Germany	x	x	x	x	x	x	x		x	x	x	x	x	x	x		x	x	x			
Greece	x	x	x	x	x	x	x	x	x	x	x	x			x			x		x		
Hungary	x	x	x	x	x	x			x		x	x		x	x							
Italy	x	x	x	x		x	x		x	x								x		x		
Japan	x	x	x	x	x	x	x	x	x			x	x					x				
Korea	x	x	x	x	x	x	x	x	x		x	x		x	x							
Mexico	x	x	x	x		x	x	x	x	x	x					x		x	x	x	x	
Netherlands	x	x	x	x	x	x		x	x	x	x	x	x	x				x		x		
Poland	x	x	x	x	x	x	x		x	x	x		x		x		x			x		x
Slovak Rep.	x	x	x	x	x	x	x		x	x	x	x	x		x							x
Spain	x	x	x	x	x	x	x	x	x	x	x		x			x	x		x	x		
Sweden	x	x	x	x		x	x		x					x				x				
Switzerland	x	x	x	x	x	x	x		x	x	x	x	x	x				x				
Turkey	x	x	x	x	x	x	x		x		x	x	x		x	x		x		x		
US	x	x	x	x	x	x	x	x	x	x	x	x		x	x					x		

Matrix of 22 national categories covering disadvantaged students provided with additional resources to access the curriculum, by country. Since not all countries use all categories there are many empty cells.

National Framework and Legislation

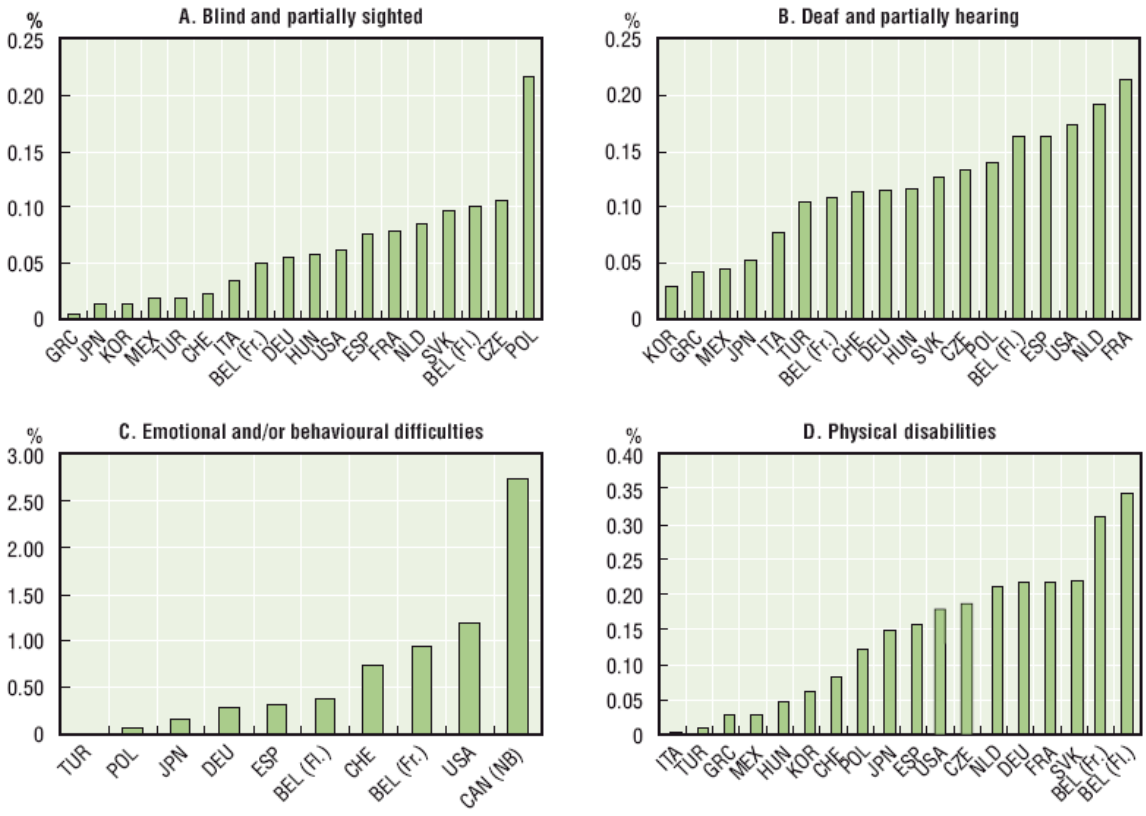
All countries have or are preparing legislation, which either covers special education or ensures access to education for all students (OECD, 2005 p.19). The concept of educational needs is a topical debate in European countries, typically with a move away from the medical concept of 'handicap' towards a more relational concept with the interaction between disability and education (EADSNE, 2003c p.8). In most countries, there is a national legal framework for identifying students with special needs, which includes providing additional resources (OECD, 2005 p.21). Most European countries do this through individual educational programmes (EADSNE 2003c p.8).

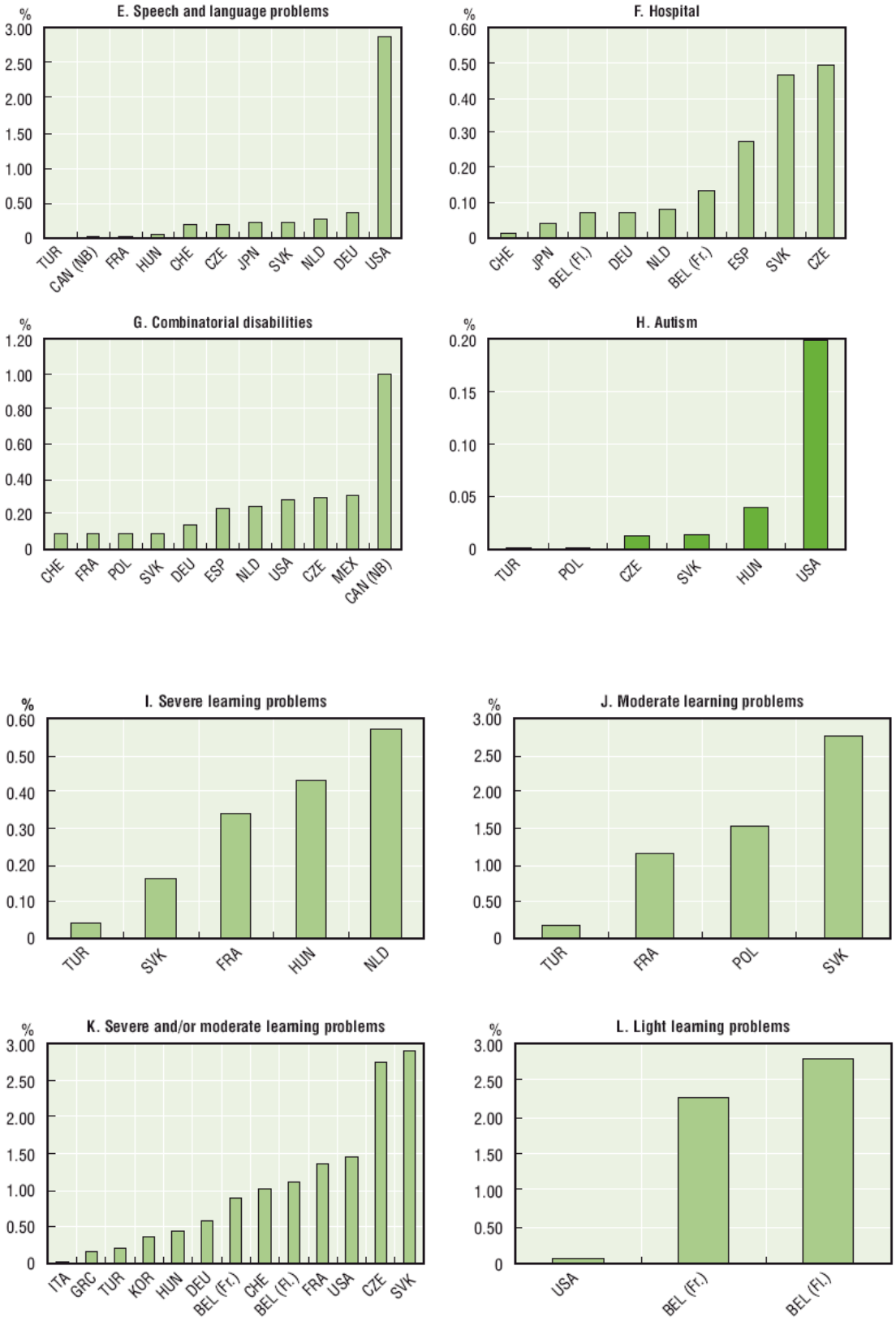
The EADSNE report (2003c p.7) notes that Denmark, Italy, Norway and Sweden developed inclusive schooling policies early on. Parental choice has been subject to legislative change in Austria, the Netherlands, Lithuania and the UK (p.7), as has decentralisation (particularly noted for the Czech Republic, Finland, Lithuania, the Netherlands and the UK by EADSNE but also arguably in other countries such as Sweden too).

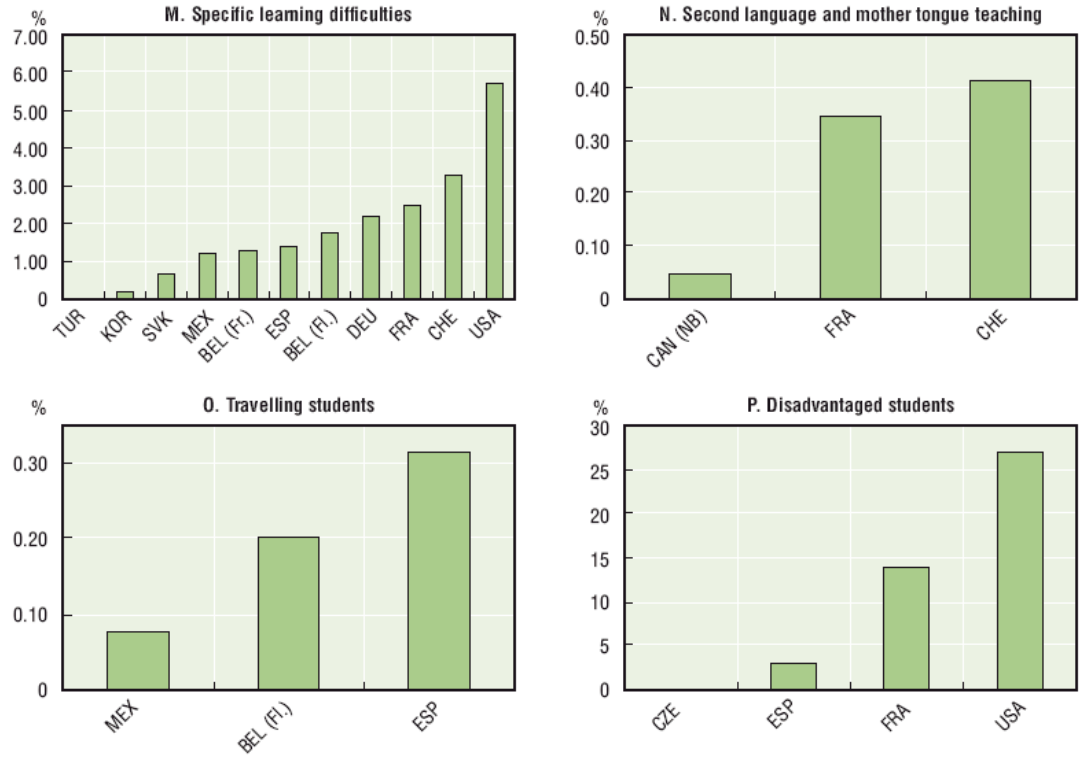
Resource Allocation

The OECD publication provides a breakdown by categories, of students receiving additional resources. Charts are only provided if three or more countries provided data; thus data are not analysed for aboriginal and indigenous students or for young offenders. These charts are included below.

Figure 2.1 (A-P): A-OECD 2005 P. Numbers of students receiving additional resources by nationally classified categories of disability, difficulty and disadvantage and by country, as a percentage of all students in primary and lower secondary education* (2001)




E. Speech and language problems
%
3.00
2.50
2.00
1.50
1.00
0.50
0
TUR
CAN (NB)
FRA
HUN
CHE
CZE
JPN
SVK
NLD
DEU
USA
F. Hospital
%
0.60
0.50
0.40
0.30
0.20
0.10
0
CHE
JPN
BEL (Fl.)
DEU
NLD
BEL (Fr.)
ESP
SVK
CZE
G. Combinatorial disabilities
%
1.20
1.00
0.80
0.60
0.40
0.20
0
CHE
FRA
POL
SVK
DEU
ESP
NLD
USA
CZE
MEX
CAN (NB)
H. Autism
%
0.20
0.15
0.10
0.05
0
TUR
POL
CZE
SVK
HUN
USA
I. Severe learning problems
%
0.60
0.50
0.40
0.30
0.20
0.10
0
TUR
SVK
FRA
HUN
NLD
J. Moderate learning problems
%
3.00
2.50
2.00
1.50
1.00
0.50
0
TUR
FRA
POL
SVK
K. Severe and/or moderate learning problems
%
3.00
2.50
2.00
1.50
1.00
0.50
0
ITA
GRC
TUR
KOR
HUN
DEU
BEL (Fr.)
CHE
BEL (Fl.)
FRA
USA
CZE
SVK
L. Light learning problems
%
3.00
2.50
2.00
1.50
1.00
0.50
0
USA
BEL (Fr.)
BEL (Fl.)



Notes:

1. Only includes data which can be readily placed in one of the 16 categories.
2. For France, Germany and Switzerland data are for the period of compulsory education.
3. The percentages are calculated by dividing the number of students by the total number of students in primary and lower secondary education. There are two exceptions: Belgium (Flemish Community), which includes upper secondary students; and Turkey, which only includes primary education students.
4. Certain categories are presented together, as most countries do not keep separate data. These categories are: blind and partially sighted students; deaf and partially hearing students; students with severe and moderate learning difficulties; second language and mother tongue teaching.
5. The data are based on full time study. Both public and private institutions are included.
6. Data from Canada (New Brunswick) and Greece are from 2001/02, and those from Hungary and Mexico are from 1999/2000.

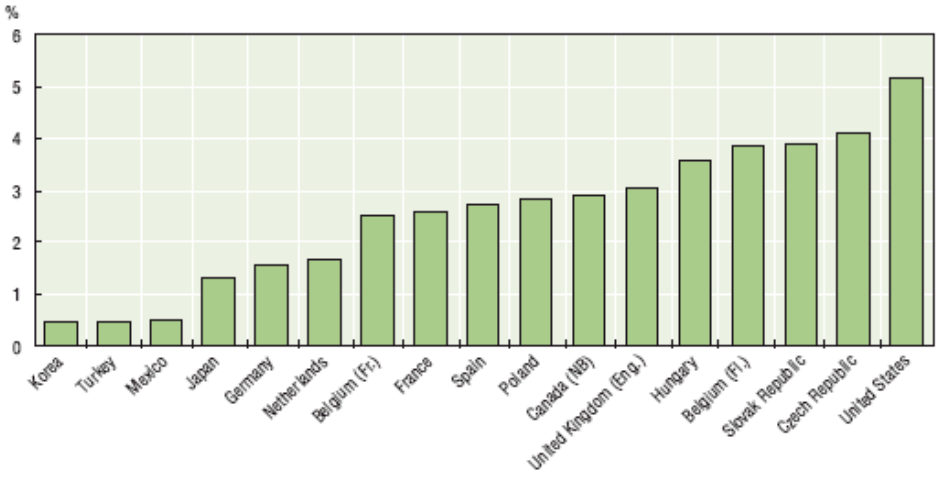
Source: *Students with Disabilities, Learning Difficulties and Disadvantages: Statistics and Indicators* OECD, 2005

The publication notes limitations in its data (e.g. they do not avoid double counting and there are missing data). Even with such limitations, the “unexpectedly large differences” are notable across countries, in the percentages of students identified (OECD 2005 p.59). Such differences are found even in the most medicalised categories, category A (disabilities), where countries range from 1% to 4% of students receiving additional resources for disabilities (OECD 2005 p.134).

Incidence or prevalence of disabilities may be different in certain countries (OECD 2005 p.134). Certainly, groups identified in category C (disadvantages) may also vary considerably by country: e.g. some countries may be supporting students with a greater range of languages (as they may be accepting more refugees or immigrants, or may have a range of aboriginal groups), or higher levels of poverty, or a significant population of travelling people. But there are at least two further reasons for these differences. First, they may reflect different policy priorities, in relation to additional resource allocation (see funding section below). Second, they may reflect how well mainstream schooling includes or disadvantages students. In other words, if school curricula, teachers and other elements were inclusive and did not create difficulties in access, then fewer students would have ‘special needs’ because their needs would be met by the mainstream.

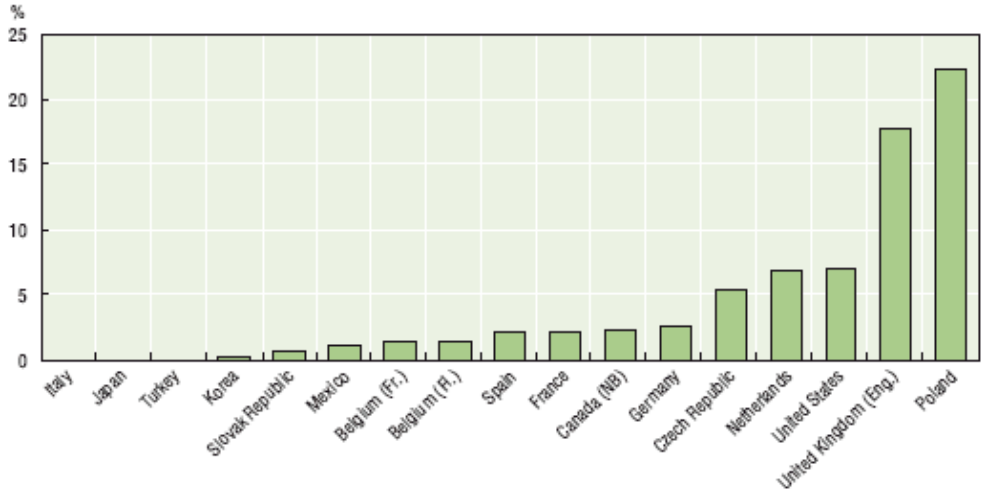
Countries differ considerably on the identification and resourcing of students. Charts below show this for compulsory education overall, by the three different categories:

Figure 2.2: Numbers of students receiving additional resources over the period of compulsory education in cross-national category A, as a percentage of all students in compulsory education, 2001



1. France: for the sake of international comparability French students administered by the Ministry of Health have been added to these data provided by the Ministry of Education. This probably has the effect of slightly inflating the percentage for France in contrast to other countries that have an unknown number of students outside the education system.

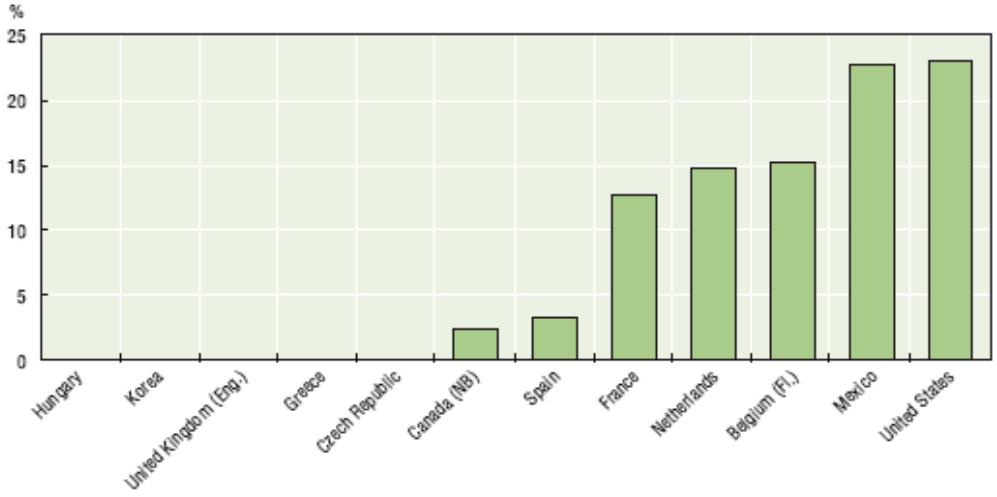
Figure 2.3: Numbers of students receiving additional resources over the period of compulsory education cross-national category B, as a percentage of all students in compulsory education, 2001



1. Countries are ranked in ascending order of percentage of students.
2. In Italy and Japan there are no national categories falling within category B.

Source: *Students with Disabilities, Learning Difficulties and Disadvantages: Statistics and Indicators* OECD, 2005

Figure 2.4: Numbers of students receiving additional resources over the period of compulsory education in cross-national category C, as a percentage of all students in compulsory education



1. Countries are ranked in ascending order of percentage of students.
2. In Korea and the United Kingdom (Eng.) there are no national categories falling within category C.
3. Greece: category 8 "socio-economic/cultural educational difficulties" is not available in regular classes.
4. Hungary: category 9 "disadvantaged students" is not available.

Source: *Students with Disabilities, Learning Difficulties and Disadvantages: Statistics and Indicators* OECD, 2005

The range between countries is less, for category A (disabilities) (Korea – 0.47% to USA – 5.16%) than for either category B (difficulties) (Italy – close to or at 0% to Poland --22.29%) or category C (disadvantages) (Hungary – close to or at 0% to US – approx 23%). In terms of median percentage, however, the range is less wide: 2.73% category A (disabilities); 2.15% category B (difficulties); 2.88% category C (disadvantages). It is relevant, however, to look at countries who use all three categories:

Table 2.4: Comparison of percentages of children in cross-national categories A, B and C over the period of compulsory education (countries for which data are available for all three categories)

	A	B	C
Netherlands	2.08	6.52	14.85
Spain	2.73	2.15	3.30
Belgium (Fl.)	3.86	1.53	15.29
Canada (NB)	2.89	2.38	2.46
United States	5.16	7.13	23.07
Korea	0.47	0.09	0.00
Mexico	0.51	1.13	22.74
Germany	1.54	2.61	0.00
France	2.58	2.18	12.59
United Kingdom	3.03	17.70	0.00
Czech Republic	4.08	5.51	0.08

Source: *Students with Disabilities, Learning Difficulties and Disadvantages: Statistics and Indicators* OECD, 2005

Countries also differ considerably by the stage of education. For example, of the countries reporting data for particular stages, the mean and median proportion of students receiving additional resources is:

Table 2.5: Means and Medians, by stage of education and cross-national categorisations, of the proportions of students receiving additional resources across available countries' data

	Category A (disabilities)		Category B (difficulties)		Category C (disadvantages)	
	Mean	**Median**	**Mean**	**Median**	**Mean**	**Median**
Pre-primary	1.49%	0.86%	1.57%	0.07%	6.80%	0.49%
Primary	2.76%	2.54%	4.19%	2.08%	7.62%	0.12%
Lower secondary	3.11%	3.56%	6.18%	2.29%	3.55%	1.65%
Upper secondary	1.57%	1.22%	2.50%	0.03%	1.07%	0.07%

Source: chapter 4 and Chart 4.31, OECD, 2005 p. 116

Generally, a peak can be seen at the lower secondary stage for categories A and B. This is also found for category C, if the median is considered and not the mean (indicating that there are 'outlier' countries that are creating a higher mean at earlier stages – see below). Category B varies considerable, with lows at either end of schooling and more resources in the middle stages.

The considerable differences between means and medians underline the differences across countries. Such ranges are particularly evident in lower secondary and upper secondary education, in category B (difficulties), and for all levels for category C (disadvantages)[1]. For example:

- From 14.78% in the UK (England) to 0.56% in Belgium (Flemish Community) at lower secondary level for category B.
- From 17.3% in the UK (England) to 0.01% in Spain at upper secondary level for category B.
- From 34.45% in Mexico to 0.04% in the Czech Republic for primary level for category C.
- From 16.98% in Mexico to 0.13% in the Slovak Republic for lower secondary level for category C.
- From 26.95% in Belgium (French Community) to close to or at 0% for Hungary, for upper secondary level for category C.

Given increased research attention to 'early intervention' (EADSNE 2003c), it is notable that the proportion of resourced students in pre-primary was significantly less than for primary education. This suggests some but not substantial investment in such early intervention (of course, the proportions refer to numbers of students, rather than financial resources). There were three exceptions:

- The UK (England), which reported 14.10% of students identified at pre-primary stage, in relation to category B (difficulties)
- France, the Netherlands and Belgium (Flemish Community), which reported 12.99%, 19.24% and 25.17% respectively at pre-primary stage, in relation to category C (disadvantages). These percentages were very similar to proportions identified at primary stage.

The OECD report also reviews available data on **gender**. As a generalisation, more boys than girls are receiving additional resources. For example, the median percentages for boys are: 61.3% category A (disabilities); 66.78% category B (difficulties); and a typical range for category C (disadvantages) between 50 and 60% (OECD 2005 p.140). The report postulates on why there are these differences, giving four possible reasons: that boys are more vulnerable than girls; that the success of boys is prioritised over that of girls; that boys externalise their feelings more than girls, and thus are more likely to be labelled; schooling is becoming feminised (OECD 2005 p. 140).

[1] These ranges are only for those countries presenting certain comparative data *across* levels.

The EADSNE report (2003c p.11) notes a trend in European countries, where special schools and institutes are transformed into **resource centres**. These centres tend to do the following:

- Train teachers and other professionals
- Develop and disseminate materials and methods
- Support mainstream schools and parents
- Provide short term or part-time help for individual students
- Support students to enter the labour market (p.11)

This trend, however, is contested in certain countries. For example, EADSNE notes concerns about threats to special schools in Belgium, the Netherlands and France (who all have large special school systems).

Placement

The OECD project provides detailed information, per sub-category, on the placement of students. These charts are included in Appendix A. It is important to take account of how data have been gathered, for example, the French figures only include data from the Ministry of Education and not the Ministry of Health, thus inflating the mainstreaming of students in regular classes.

The charts demonstrate that countries vary considerably in the placement of students in particular sub-categories: i.e. the proportion of children in a particular sub-category who are in special schools, special classes or regular classes. For example:

- In Italy, 95% of blind or partially sighted students are educated in regular classes, while nearly four-fifths of Korean students are educated in special schools.
- In Canada (New Brunswick), all students with emotional and behavioural difficulties are in regular classes, while special schools and special classes are more common in Belgium (Flemish Community), Germany, Japan and the United States.
- In Belgium (French Community), all students with specific learning difficulties are in special schools, while the reverse is reported for Spain.

Exceptions are the predominant use of special classes or special schools for students with autism and students with severe learning problems.

Further comparisons reveal:

- Over the stages of education (from pre-primary to upper secondary), there are *no* consistent patterns of increased or decreased identification of students, according to sub-categories: blind or partially sighted students; deaf or partially hearing students; physical disabilities; speech and language problems; severe learning problems; moderate learning problems; severe and/ or moderate learning problems;
- Over the stages of education (from pre-primary to upper secondary), there *are* consistent patterns of increased or decreased identification of students, according to sub-categories: emotional and/or behavioural difficulties (highest in lower secondary for most countries); 'combinatorial' disabilities (highest in primary for most countries); autism (fewer students in older age groups); specific learning difficulties (highest in primary for most countries[2], except for France and USA where highest in lower secondary).

The EADSNE report (2003c p.12) suggests that inclusion generally works positively at the primary stage but serious problems emerge at the secondary stage. This is attributed to increased topic specialisation, the different organisation of secondary schools, and the increasing 'gap' between certain pupils with special needs and their peers with age.

[2] Note that this is related to country's provision and categorisation: for example, Belgium (Flemish Community) *only* categorises children as having specific learning difficulties at primary level (OECD 2005 p.29).

Very little data are presented about the placement of students in category C (disadvantages). From what is available, the following comments can be made:

- For students receiving second language and mother tongue teaching: Canada (New Brunswick) only uses regular classes while France and Switzerland only use special classes.
- For travelling students: Belgium (Flemish Community) and Spain only use regular classes while Mexico only utilises special schools.
- For disadvantaged students: France, Spain and the United States only use regular classes while the Czech Republic makes some use of special schools.

Overall, for reporting countries, one can observe:

- Category A (disabilities): Considerable variation across countries, between a preference for regular classes (Canada (New Brunswick)) to a preference for special schools (Belgium (Flemish Community)). Most countries have a mix of the three types of placements (these include the US, Turkey, France, Slovak Republic, Japan, Hungary, Czech Republic and Korea).
- Category B (difficulties): Considerable variations across countries, between a preference for regular classes (Canada (New Brunswick)) to a preference for special schools (Belgium (French Community)). A few countries have a mix of all three placement types.
- Category C (disadvantages): A definite preference for regular classes in all countries.

As a generalisation: certain countries report binary systems (i.e. little use of special classes in mainstream schools, for example Belgium (Flemish Community), Germany, the Netherlands and Spain) while other countries make use of all three types of placement (e.g. Korea, Japan, United States). Certain countries seek to be fully inclusive (e.g. Italy and Canada (New Brunswick)).

These observations from the OECD data broadly match EADSNE's classification of countries into three types, based on countries' policies:

1. One-track approach: policies and practices include almost all pupils within mainstream education. Cyprus, Greece, Iceland, Italy, Norway, Portugal, Spain, and Sweden.
2. Multi-track approach: a multiplicity of approaches to inclusion is maintained, with a variety of services between the two systems (i.e. mainstream and special needs education). Austria, the Czech Republic, Denmark, Estonia, France, Finland, Ireland, Latvia, Liechenstein, Lithuania, Luxembourg, Poland, Slovakia, Slovenia, Scotland and the United Kingdom. Germany and the Netherlands are noted as moving from a two-track to a multi-track approach.
3. Two-track approach: two distinct systems are maintained. Pupils with special educational needs are usually placed in special schools or special classes and do not follow the mainstream curriculum. Belgium and Switzerland.

These approaches broadly match the statistical information provided by the report (see Table 2.6 below), on the placement of children with special educational needs:

Table 2.6: Provision for pupils with special educational needs[1]

	Number of compulsory school aged pupils	Percentage of pupils with SENs	Percentage of pupils in segregated provision[2]	Year of reference
Austria	848,126	3.2%	1.6%	2000/2001
Belgium (DE)	9,427	2.7%	2.3%	2000/2001
Belgium (F)	680,360	4.0%	4.0%	2000/2001
Belgium (NL)[3]	822,666	5.0%	4.9%	2000/2001
Cyprus	N/A	5.6%	0.7%	2000/2001
Czech Republic	1,146,607	9.8%	5.0%	2000/2001
Denmark	670,000	11.9%	1.5%	2000/2001
Estonia	205,367	12.5%	3.4%	2000/2001
Finland	583,945	17.8%	3.7%	1999
France	9,709,000	3.1%	2.6%	1999/2000/2001
Germany	9,159,068	5.3%	4.6%	2000/2001
Greece	1,439,411	0.9%	< 0.5%	1999/2000
Hungary	1,191,750	4.1%	3.7%	1999/2000
Iceland	42,320	15.0%	0.9%	2000/2001
Ireland	575,559	4.2%	1.2%	1999/2000
Italy	8,867,824	1.5%	< 0.5%	2001
Latvia	294,607	3.7%	3.6%	2000/2001
Liechtenstein	3,813	2.3%	1.8%	2001/2002
Lithuania	583,858	9,4%	1.1%	2001/2002
Luxembourg	57,295	≈ 2.6%	≈ 1.0%	2001/2002
Netherlands[4]	2,200,000	2.1%	1.8%	1999/2000/2001
Norway	601,826	5.6%	0.5%	2001
Poland	4,410,516	3.5%	2.0%	2000/2001
Portugal	1,365,830	5.8%	< 0.5%	2000/2001
Slovakia	762,111	4.0%	3.4%	2001/2002
Slovenia	189,342	4.7%	(:)	2000
Spain	4,541,489	3.7%	0.4%	1999/2000
Sweden	1,062,735	2.0%	1.3%	2001
Switzerland[5]	807,101	6.0%	6.0%	1999/2000
United Kingdom	9,994,159	3.2%	1.1%	1999/2000

1. This data relates to different age groups, as the compulsory starting age for school differs across countries.
2. The term 'segregated settings' or 'provision' throughout this text refers to special schools and full-time (or almost full-time) special classes.
3. In the Flemish Community, specific educational programmes exist in mainstream schools to support teaching practice in schools (e.g. for pupils from underprivileged families, refugee children etc.). Schools get additional and earmarked funding for this. The number of children belonging to these target groups are not included in the figures of pupils with SEN. Numbers are only referring to pupils with intellectual, physical, visual or hearing impairments, with severe learning disabilities or emotional and behavioural problems.
4. The percentage of the Netherlands has fallen sharply compared with a few years ago because of changes in legislation and regulations: some types of special schools now belong to the mainstream school system.
5. Statistics at national level do not allow for differentiation between pupils with SEN in inclusive and segregated settings (many pupils with SEN in mainstream are not counted separately).

Source: *Students with Disabilities, Learning Difficulties and Disadvantages: Statistics and Indicators* OECD, 2005

As one might expect, the columns on percentage of pupils with special educational needs and pupils in segregated provisions almost completely overlap for Belgium and Switzerland. One-track approach countries have low percentages of pupils with special educational needs in segregated provision – but so do some multi-track approach countries.

Funding and provision of additional resources

The OECD study requested countries to provide data on the numbers and location of children receiving additional resources to meet their needs. An overview by category is presented, by levels of education. These are demonstrated in the tables below for compulsory education, revealing significant differences by country and educational stage. In relation to children with disabilities, for example, in some countries a higher proportion of primary aged children attract additional resources compared with their older peers (this is the case in the United States, for example). In other countries, by way of contrast, a higher proportion of children at lower secondary stage attract additional resources (e.g. in Belgium (French Community)). In the United States, Mexico, the Netherlands and Belgium (Flemish Community), a high proportion of additional funding appears to be channelled towards children with disadvantages at the primary stage.

Table 2.7: Comparison of numbers of children with disabilities receiving additional resources in primary and lower secondary education, as a percentage of all children in that phase of education

	Primary	Lower secondary
Mexico	0.91	0.24
Japan	1.42	1.09
Belgium (Fr.)	2.01	8.59
Italy	2.03	2.53
Canada (NB)	2.19	3.80
United Kingdom (Eng.)	2.43	3.56
Poland	2.66	3.38
Netherlands	2.70	1.61
Spain	3.33	2.39
Belgium (Fl.)	3.61	7.51
Czech Republic	4.17	4.13
Hungary	4.18	5.29
Slovak Republic	4.37	3.96
United States	6.08	5.92

Table 2.8: Comparison of numbers of students with difficulties receiving additional resources in primary and lower secondary education, as a percentage of all students in that phase of education

	Primary	Lower secondary
Korea	0.31	0.12
France	0.46	3.71
Slovak Republic	0.78	0.75
Mexico	1.83	0.07
Spain	2.04	2.29
Canada (NB)	2.12	3.90
Belgium (Fr.)	2.30	2.07
Belgium (Fl.)	2.66	0.56
Netherlands	4.06	14.44
United States	4.89	15.31
Czech Republic	5.14	5.93
United Kingdom (Eng.)	19.44	14.78

Table 2.9: Comparison of numbers of children with disadvantages receiving additional resources in primary and lower secondary education, as a percentage of all children in that phase of education

	Primary	Lower secondary
Czech Republic	0.04	0.15
Slovak Republic	0.06	0.13
Poland	0.12	0.34
Canada (NB)	2.18	3.94
Italy	2.49	2.14
Spain	4.56	1.65
France	12.74	13.88
Netherlands	21.06	6.49
Belgium (Fl.)	25.44	6.77
United States	32.40	16.02
Mexico	34.45	16.98

Source: *Students with Disabilities, Learning Difficulties and Disadvantages: Statistics and Indicators* OECD, 2005

Classifications are common, as a basis for resource allocation (OECD, 2005 p.21). Countries vary in the extent of their monitoring arrangements for such allocations (OECD, 2005 p.21; see also EADSNE, 2003c p.24). Certain countries have a concern that funding biases placement decisions (OECD, 2005 p.23).

The EADSNE report (2003c) considers the impact of funding policies on students' placement. They consider two parameters influential: who gets the funds (pupils, parents, schools, resource centres etc.); and indicators used for funding (input measures – identified need etc.; throughput – services provided; outputs indicators – achievement scores etc.). Although there are many differences between countries in the governance of education and the various tiers of bureaucracy, the report suggests the following broad categories:

- Input-based funding for special schools, with funds drawn down from central government. This occurs both in countries with high and low proportions of special schools, and accords a lesser role to local decision-making. Austria, Belgium, Cyprus, France, Germany, Ireland, Luxembourg, Liechenstein, the Netherlands, Sweden (for their few special schools) and Switzerland all use this model.
- Throughput funding, via lump sum, to municipalities. Decisions on funding are thus devolved from national government to the local level. Funding of this nature takes place in Denmark, Finland, Greece, Iceland, Norway and Sweden.
- Throughput funding to middle-government tiers (larger than municipalities). This model is applied in the Czech Republic, Denmark (for more 'severe' special educational needs), France (for inclusive services), Greece, Italy, the Netherlands (for 'milder' special educational needs), Poland, Slovakia, the UK.
- Input-based funding for individual pupils. Funds are often transferred from national government to local government, and thence to the particular institution where the child is being educated. This funding model is used in Austria (for certified pupils), the Czech Republic, France (SEA procedure), Luxembourg and the UK (through statements). The Netherlands is expected to join this group.
- A few countries assume that 'milder' forms of special needs are evenly distributed across schools and a fixed budget is provided to schools.

As with the Netherlands, many countries are changing their funding mechanisms.

The report evaluates these models (p.23). It notes that the 'most negative voices are heard' in countries where funding systems use a direct input-funding model for the support of special educational needs. This leads to strategic behaviour by stakeholders, such as parents and

teachers, and money spent on non-educational matters such as litigation and diagnostic procedures. This may be a feature of countries such as the US and, to a lesser extent, England. In contrast, the most 'positive effects' are reported by countries with strong decentralised systems, where municipalities or local authorities have the main responsibility for deciding on funding mechanisms. However, this can lead to inequity by geography. Pupil-based budgets are negatively reviewed, because schools will prefer those pupils causing the least work. Such funding mechanisms also lead to parents seeking the highest amount of funding for their children. (p.24). A further downside of delegating funding to schools is that there is no guarantee that funds intended for children with special needs will actually be spent on this group. This may lead to pressure to place children in special settings, where additional resources are more likely to be present.

Support

Table 2.10 of the EADSNE (2003c) report summarises countries' educational support to (mainstream) class teachers:

Table 2.10 Different forms of educational support to class teachers

Country	Types of professionals and services
Austria	Support is mainly provided by specialist teachers from special schools or from visiting services. They support both the class teacher and the pupil. Classroom and specialist teachers work as a team, sharing the planning and organisation of the educational work. Professionals from visiting services may offer temporary direct support to included pupils presenting specific disabilities.
Belgium	Support is mainly provided by specialist teachers from special schools and from Centres for Pupil Guidance. They provide information, advice and support to the class teacher. It is possible to find remedial teachers working as school staff members. They mainly support pupils presenting short-term difficulties, but more and more providing direct support to class teachers and the school, trying to co-ordinate provision of support, working methods and educational programmes.
Cyprus	Support is provided by specialist teachers fully or partially attached to the school and by specialists, such as speech therapists, who have specific time allocated to each school. Outside the school, central services, such as inspectors, SEN co-ordinators, education and psychology specialists, or health and social services, also provide the necessary support.
Czech Republic	Support is mainly provided by specialist teachers or other professionals, such as psychologists. They provide advice and support to class teachers, parents and direct support to the included pupil. Support is provided through special educational centres or pedagogical psychological advice centres according to the specification of the pupil's need. These specialist advice and guidance centres are in charge of determining, proposing and providing support and of elaborating the individual educational plan in close co-operation with the class teacher, the parents and the pupil (in accordance with his/her impairment and level of active participation).

Denmark	Support is mainly provided by a specialist teacher working as a school staff member. They co-operate inside the class with the class teacher on a part-time basis. 'Group teaching' outside the classroom is another possibility where the pupil needs regular support in more than one subject. Local pedagogical psychological services are in charge of determining, proposing and following the type of support to be provided to the pupil in close co-operation with the mainstream school.
England and Wales	All schools have a member of staff who is the designated special educational needs co-ordinator with a wide range of responsibilities, articulated in the Special Educational Needs Code of Practices (DfES, 2001), including: overseeing provision, monitoring pupils' progress, liasing with parents and external agencies, and supporting colleagues. Support is also provided by external agencies – specialist support services (from the education department and the health authority), colleagues in other schools, and other LEA personnel. Peripatetic staff work increasingly with teachers, in order to develop teaching approaches and strategies within the school, rather than directly with pupils.
Finland	Support is mainly provided by a specialist teacher working as a school staff member. A counselling teacher, school social worker or school nurse, depending on the local educational authorities, can also provide support to the school in general, to the teacher and/or the pupil. A pupil welfare team is set up involving the pupil, their parents, all teachers and any other experts involved in order to prepare an individual educational programme to be implemented in the mainstream school. There also exists a 'pupil support group' involving all professionals and the principal of the school to ensure good educational conditions and progress.
France	Support is mainly provided by specialist professionals from various services. They support included pupils on a short- or long-term basis. They also help the class teacher and the school staff. Specialist teachers from special support networks also provide support to pupils presenting temporary or permanent learning difficulties.
Germany	Support is mainly provided by a specialist teacher from a special school or from a social service. Support is diverse and includes preventive measures, joint education actions in mainstream schools, education co-operation between special and mainstream schools etc. There can also be a support teacher working as a school staff member. They are mainly teachers specialising in language or behaviour problems. They work mainly with pupils inside or outside the classroom according to the pupils' needs.
Greece	Support is mainly provided by a specialist teacher from a special school. Their work consists of directly helping the pupil, assisting the teacher with the variety of teaching materials and in differentiating the curriculum – informing other pupils and ensuring good co-operation between the school and the family.
Iceland	Support is mainly provided by a remedial teacher working as a school staff member. Other types of support are also provided by specialist teachers, psychologists or other professionals from the local municipalities. They will provide general advice on the curriculum and on the teaching of the main subjects; guidance for pupils and psychological counselling. Their aim is to support teachers and head teachers on daily schoolwork and school improvement.
Ireland	Support can be provided by a specialist or resource teacher working as a school staff member. They are dealing with pupils with assessed learning disabilities. Support can also be provided by a remedial teacher working as a school staff member. Their main aim is to work with pupils with difficulties in reading and

	mathematics. All primary and post-primary schools have such a teacher. Another type of support is a visiting teacher from the Visiting Teacher Service (Department of Education). They work with individual pupils, both inside and outside the classroom, and advise teachers on teaching approaches, methodology, programmes and resources. They also provide support for parents. The Psychological Service of the Department of Education and Science provides assessment and advisory service for mainstream schools with a focus on pupils with emotional and behaviour problems and with learning difficulties.
Italy	Support is mainly provided by a specialist teacher working as a school staff member. They act as class teachers, providing support in the mainstream school after obtaining parental authorisation. Support teachers share responsibility with the class teacher concerning the work to be done with all pupils. Implementation of an individual education plan is one of their main tasks. They also support pupils inside the classroom; pupils with disabilities are not to be pulled out of their classes unless absolutely necessary.
Liechtenstein	Support is mainly provided by a specialist teacher from a special school. They mainly provide support to pupils but also to teachers and parents.
Lithuania	Support is mainly provided by specialist teachers, school psychologists, speech therapists, social pedagogues from special schools or from pedagogical psychological services. Specialist teachers provide class teachers with information and practical support: elaborating an individual educational programme, selecting educational materials etc. Support can also be provided by a remedial teacher, speech therapists, school psychologists working as school staff members. These specialists are mainly available in mainstream schools in big cities or towns; there is still a lack of specialists in rural areas. Pedagogical psychological services at local or national levels provide assessment of pupils and guidance for education of included pupils.
Luxembourg	Support is mainly provided by specialist support professionals from the SREA (Ambulatory Remedial Department). They are professionals in education and rehabilitation and share responsibilities with class teachers with regard to direct support to the pupil. Class teachers are always in charge of the organisation of the class.
Netherlands	Support is mainly provided by a support teacher from a special school. They work with the class teachers to develop educational programmes, to prepare and provide additional materials, to work with pupils individually and to contact parents. Support may also be provided through mainstream schools with experience in inclusion. Support focuses on information to teachers, assessment and providing teaching materials. Support teacher may also be one of the mainstream schoolteachers providing direct help and support to the pupil.
Norway	Support is mainly provided by a specialist teacher working as a school staff member. They co-operate with the class teacher part-time or full time. Support can also be provided by an assistant in the classroom. There is close co-operation between the three of them. The local educational psychological services are the ones to advise school and parents on the content and organisation of the education required for the pupil. They are the people mainly responsible for advising teachers on the daily work.
Poland	Teachers working with disabled pupils receive support from the National Centre of Psychological and Pedagogical Support or from regional Teaching Methodology Centres. These centres provide training courses for teachers. Mainstream schools are to provide psychological and pedagogical support to pupils, parents and teachers, organising, for example, remedial classes.

Portugal	Support is mainly provided by specialist teachers, or other professionals either from local support teams or internal school staff members. National policy gives priority to the second situation. The aim is to create co-ordinated teams which will provide guidance to class teachers. They co-operate with the head teacher and the school to organise the necessary educational support; they co-operate with class teachers in order to reorganise the curriculum in a flexible way; to facilitate differentiation of educational methods and strategies; to support teachers and pupils and contribute to educational innovation.
Spain	Support is mainly provided by a specialist support teacher working as a school staff member. They work in primary and secondary schools and play an important role with the pupil and the teacher, planning together the curriculum differentiation and its implementation. They also support families and work in co-operation with other professionals. Another type of support is a remedial teacher for learning support, present in all primary schools. Support can also be provided by local psychological pedagogical support teams. They are responsible for the assessment of pupils, advising teachers and school staff on the measures to be taken, following pupils' progress and involving families.
Sweden	Support is mainly provided by a specialist teacher working as a school staff member. Municipalities are responsible for providing and financing support to schools. If needed, support to build up knowledge in the municipalities can be provided at a national level through the Swedish Institute for Special Needs Education.
Switzerland	Support is mainly provided by support teachers, specialist teachers or specialist professionals from special schools or mainstream schools (milder forms of SEN). They provide support to included pupils and their teachers.

The table shows that frequently support is given to the class teacher by a specialist teacher. This can be a specialist staff member of the mainstream school or a specialist professional external to the school. In the latter case, special schools may provide this support. Services may be directed towards the pupil or the classroom teacher, or both.

Role of parents

Countries with more segregated provision (e.g. Belgium, France, the Netherlands, Germany and Switzerland) report parental pressure for inclusion and there is positive parental support in countries with inclusive practices (e.g. Cyprus, Greece, Norway, Portugal, Spain, and Sweden). However, parents whose children have more 'severe' special needs are said to prefer segregated settings for their children (e.g. Norway, Portugal, Spain, Sweden). (EADSNE 2003c p.13)

Parents generally have a legal right to express a school preference, in Austria, Belgium (Flemish Community), the Czech Republic, Lithuania, the Netherlands and the UK (EADSNE 2003c p.13).

Summary

- Data used in this section have been drawn from two different sources: the OECD and the EADSNE.
- Whereas EADSNE preserves national differences in understanding of SEN, OECD fits national data into a framework for the purposes of cross-national comparison. The OECD framework has been accused of being one-dimensional.
- Broadly, the OECD uses four categories: disabilities, difficulties, disadvantages and non-categorical systems.

- Whilst there is an on-going move away from the use of medical categories, almost all countries employ nine sub-categories.

- Differences in disabilities and difficulties are deemed to be due to social, cultural and administrative variation between countries. Differences in disadvantages relate to wider economic conditions.

- In most countries there is a legal framework for the identification of SEN. In Europe, this is often done through individual educational planning.

- Countries differ markedly with regard to whether they allocate additional resources to students with specific impairments. This is true even in relation to normative categories such as blindness.

- Internationally, a higher proportion of boys than girls receive additional support for special educational needs.

- There are major differences between countries as to whether pupils with specific impairments are educated in mainstream or special settings.

- The identification of children with normative categories of disability (e.g. blindness, severe learning difficulties) is constant across all stages of education. The proportion of children with non-normative difficulties (e.g. emotional and behavioural difficulties) peaks at lower secondary level.

- The EADSNE report notes that inclusion is perceived to work well at primary level, but problems arise at secondary level due to school organisation, topic focus and growing distance between the child with special needs and his or her peers.

- For children with disabilities and difficulties, some countries prefer special placement whilst others favour mainstream. Most countries use a mix of provision.

- Children who are socially disadvantaged are normally placed in mainstream schools.

- EADSNE identifies three distinctive approaches to school placement:

    (i) one-track – almost all pupils in mainstream
    (ii) multi-track – multiplicity of approaches to inclusion, the most common approach
    (iii) two-track approaches – mainstream and special schools run in parallel.

- Funding mechanisms have a major impact on pupil placement. Where funds are tied to the formal identification of particular impairments, resources may be used on expensive litigation. On the other hand, delegating resources to municipalities may also be problematic, since funds may not be ring-fenced, producing pressures for parents to choose special schools where additional resources are guaranteed.

- In mainstream schools, a common model is for additional support to be given to the class teacher or the pupil by a specialist teacher.

- Parents tend to support education in inclusive settings where this is the established model, unless their children have severe disabilities, in which case they prefer special settings. In countries with highly segregated systems, parents often lobby for more inclusive provision.

SECTION 3: COUNTRY CASE STUDIES

Introduction

This section considers policy and legislation, school organisation and resourcing, assessment and curriculum frameworks, and pedagogical practices for children with special educational needs in five case study countries. Teacher education is also discussed since there are strong messages in the literature as to the importance of teachers' values, knowledge and skills in ensuring quality classroom provision for pupils with additional or special educational needs (McDonnell et al, 1997; Cornoldi et al, 1998; Polou and Norwich, 2002). The countries we discuss (Belgium (Flanders), Sweden, Greece, England and the United States) provide examples of a range of approaches, from a high level of prescription and central control to devolved and locally-managed systems. Some countries demonstrate different degrees of control at different levels, for example, Greece has tight central control over the curriculum, but very loose control at classroom level. It is striking that different proportions of pupils are identified as having SEN in different countries, reflecting variations in administrative, financial and procedural regulations and understandings of SEN, rather than variations in the incidence of disabilities and difficulties (EADSNE, 2003:8). This is despite the fact that the European Union has indicated its aspiration that all member states will move towards more inclusive systems. Other factors, such as parental involvement and the culture of the wider education system, are important in developing curriculum and pedagogies for pupils with additional or special educational needs. Whilst these are mentioned, they are not discussed in depth due to the scope of the review. At the end of each case study, emerging themes and points of comparison are identified, and these are discussed further in Section 5.

Methods

A number of sources have been used in compiling this section including government websites, official reports from European and other international agencies; academic literature; and interviews with experts in curricular provision in each of the five education systems discussed. Particular emphasis has been given to large-scale reports produced in recent years by the European Agency for Development in Special Needs Education (EADSNE). The literature coverage of the case study countries is not even. For example, EADSNE (2001, 2005) compiled its reports on primary education and secondary education from summaries of the research literature in 15 European countries, including three of the case study countries (Greece, Sweden and England). Interestingly, neither Belgium nor Italy were included in the countries contributing to the study, reflecting what the report describes as very different research traditions in the field of additional or special educational needs amongst its member countries. In addition, an interview was conducted with an expert in each country to check the validity of the particular interpretation.

Statistical summary

Table 3.1: Statistical overview of SEN in Belgium (Flemish), England, Greece, Sweden, and US

	Number of compulsory school aged pupils	Percentage of pupils with SENs	Percentage of pupils in segregated settings	Year of reference
Belgium (Flanders)	680, 360	4.0%	4.0%	2000/01
Greece	1,439,411	0.9%	<0.5%	1999/2000
Sweden	1.062,735	2.0%	1.3%	2001
England	9,944,159	3.2%	1.1%	1999/2000
US	54,603,324	11.46%	3%	2003

Notes:

- This data relates to different age groups, as the compulsory starting age for school differs across countries.
- The term 'segregated settings' or 'provision' throughout this text refers to special schools and full-time (or almost full-time) special classes.

- In the Flemish Community, specific educational programmes exist in mainstream schools to support teaching practice in schools (e.g. for pupils from underprivileged families, refugee children etc.). Schools get additional and earmarked funding for this. The number of children belonging to these target groups are not included in the figures of pupils with SEN. Numbers are only referring to pupils with intellectual, physical, visual or hearing impairments, with severe learning disabilities or emotional and behavioural problems.
- The percentage of the Netherlands has fallen sharply compared with a few years ago because of changes in legislation and regulations: some types of special schools now belong to the mainstream school system.
- Statistics at national level do not allow for differentiation between pupils with SEN in inclusive and segregated settings (many pupils with SEN in mainstream are not counted separately).
- In England, 3.2% of pupils have a Statement of Needs, but a further 13.8% are identified less formally as having special educational needs
- Sweden does not gather data for pupils who are fully included in mainstream schools (rather than in special classes) because of its dislike of categorisation

Belgium (Flanders)

Background
Belgium is a small country located between France and the Netherlands with a short coastline on the North Sea. Its current population is 10,379,067 (CIA, 2006) and it has very high population density. It has a modern 'high tech' economy which benefits from its well developed transport network. Tensions between the Dutch-speaking Flemings of the north, who make up 58% of the population, and the French-speaking Walloons of the south have led in recent years to constitutional amendments granting these regions formal recognition and autonomy. The ethnic mix in Belgium is reflected in its three official languages (Dutch, French and German) and it is legally Dutch/French bilingual. The country has a high adult literacy rate (99%).

The period of compulsory schooling in Belgium (Flanders) is from 6 to 18 years, although the final two years may be part-time, with pupils combining learning with work. However, most pupils remain in full-time education until 18 years. Nursery education is available for children from the age of two and a half, primary education extends from 6 to 12 years and secondary from 12 to 18 years. A system of special education runs in parallel with mainstream education, reflecting the characteristics of a two-track system.

Upwards of 4% of pupils in the Flemish Community are identified as having special educational needs (EADSNE, 2003:10). All of these pupils are in segregated provision, though not necessarily in special schools. Special nursery and special primary education consists of eight types, adapted to the educational and developmental needs of a particular group of pupils (http://www.and.vlaanderen.be/publicaties/2005), covering pupils with intellectual difficulties; physical disabilities; visual or hearing impairments; severe learning disabilities; and social, emotional and behavioural problems. Special primary education normally lasts for seven years, i.e. one year longer than mainstream primary education.

Mainstream schools also have a 'special needs' population for which they receive additional and earmarked funding (EADSNE, 2003: 9). Pupils provided for in this way have educational difficulties related to their social, cultural and economic circumstances, for example, they might be from refugee families. Teachers from special schools and from Centres for Pupil Guidance provide information, advice and support for class teachers. There are also remedial teachers in mainstream schools whose role is shifting towards support for teachers, coordination of support and the development of suitable methods and programmes.

Historical development and legislation
Special educational provision in Flanders is characterised by a relatively long-established and well-developed segregated sector, distinct from mainstream provision in both policy and practice. Some of these separate special schools have been in existence for over a hundred years, particularly those catering for sensory impairments. However, it was not until the Compulsory Education Act of 1914 that the duties of the state towards 'physically and mentally handicapped' children were officially laid down. In practice, however, provision continued to be ad hoc and largely reliant on the work of philanthropists who established schools with names such as the 'Institute for Abnormal Children'. In the first half of the century developments in the field gradually continued: by 1930s a number of specialised institutions for more 'serious' special needs had been established, and in the mid-50s special needs

courses in teaching with brain damaged children were incorporated into teacher training. At this stage special education was available only at primary level for approximately 6000 pupils (Eurydice, 2002/03). In the late 1950s, efforts were made to develop a more comprehensive special education system, but political troubles during the 1960s delayed the introduction of such legislation for a further decade.

The 1970 Act is a key piece of legislation in the history of special education in Flanders. Designed to meet unaddressed needs, the law stipulated that special education should embrace three different groups. These were: pupils with various learning disabilities that were unable to meet normal attainment requirements, pupils with sensory impairments, and children with severe physical or mental handicap who had hitherto not attended school. The act specified that attendance at a special school should be an exception that required justification through a clearly defined referral procedure and that special education should be organised around particular pedagogical programmes designed to best meet different types of need. The act specified admission procedures and eight 'types' of special education or pedagogical programme designed to meet particular needs. Despite the attempt to move away from a medicalised 'child deficit' model of special education, Detraux and Dens (1992: 69) observe that it led to some confusion over reaching an adequate operational definition of 'need', and in practice it became commonplace to hear teachers refer to a child in their care as 'a type 2'.

The establishment of this categorical approach led to a proliferation of new-built special schools and a closure of existing special classrooms in regular schools, now seen to be inadequate. These new schools were frequently on the outskirts of towns, leading to a situation in which special educational provision in Flanders meant geographical isolation for many pupils, and a weakening of operational links between special and mainstream schools. This creates a problematic structural legacy in subsequent moves towards an 'inclusion agenda', in which lack of coordination between schools and agencies is cited as an obstacle to successful practices of inclusion (European Agency (EBDs case study), 2001).

The most recent phase of special educational provision in Flanders has seen moves away from its long tradition of segregation, with tentative moves towards inclusion. In 1983, programmes were set up to promote the integration of pupils with sensory or other physical impairments who had the potential to benefit from the mainstream system. Further policy developments extended this principle of inclusion to all types of special education, including pupils with learning and behavioural problems; full-time, partial and temporary inclusion; extension to higher education; the introduction of the 'equivalence programme' in recognising graduation from special educational programmes; and the tailoring of support to meet individual needs.

Legislation passed in 1997 incorporated mainstream and special primary education into the same legal framework. Secondary education still has separate legislation for mainstream and special education. The law requires mainstream primary schools to provide all pupils with an uninterrupted learning process. Special primary education is described as that which offers adapted education, care and therapy to those pupils whose needs cannot be met by mainstream education. The balance between the capacities of the mainstream school and the needs of the child is weighed in referrals to special schools. The law also encourages schools to work together by exchanging teacher hours (European Agency, 2003c).

In July 1998, the Flemish Education Council which is the advisory body for the Ministry of Education, issued its guidance on inclusive education (Vlor, 1998). Thus, policy and legislation has started to shift towards inclusive education. New legislation passed in June, 2002 affords more rights to parents in decisions about school placement and parents can no longer be compelled to enrol their child in a special school, although this was the case in the past.

Defining special educational needs

As noted above, in the 1970s eight types of special educational programme were established and children are categorised according to the nature of their impairment in order to establish which school or programme they should attend.

Assessment of special educational needs
Strict assessment procedures are followed, which often involve medical and psychometric tests, to establish the appropriate type of special provision.

Funding
Apart from recent inclusion programmes, normally no additional funds are available to support children with special educational needs in mainstream schools, so there are strong incentives for schools to recommend placement in special settings. An exception to this is the separate financing of special classes in mainstream schools for non-Dutch speaking children (each year accounting for around 5,000 pupils in primary and secondary education). By far the greatest amount of additional resources (per capita and in total) allocated to the education of pupils with special needs thus goes to special schools (Meijer, 1999).

Curriculum and assessment
Primary education builds on the nursery curriculum which covers language acquisition, social skills, motor development, and introductory mathematics. In the primary curriculum, attention is also paid to cross-curricular themes such as 'learning to learn'. Since 1998, attainment targets have applied in mainstream primary education, whereas in nursery education and in special primary education, 'developmental objectives' apply. This distinction between mainstream and special curricula is contentious. Furthermore, like young children, progress of pupils with all types of SEN is conceptualised in terms of development only, rather than learning or attainment, goals. Separate sets of development objectives are specified for 'types' of SEN. The government policy statement *Education in Flanders* (http://www.and.vlaanderen.be/publicaties/2005) includes developmental objectives for four of the eight types of SEN, with others in preparation.

Mainstream secondary education consists of a first core stage, followed by a choice of four possible pathways: general secondary education, technical secondary education, secondary education in the arts and vocational secondary education. This stage encompasses a core curriculum plus options. All pupils successfully completing secondary education have unrestricted access to tertiary education. There is a centrally specified national curriculum, although this does not apply to pupils in special settings. Assessment is dominated by a new Standards initiative, with the emphasis on all pupils in mainstream reaching a specified minimum standard or above. Pupils who cannot attain this standard are considered unsuitable for mainstream education.

The aim of special education is seen as the integration of the pupil in the educational environment and in society. However, the curricular organisation of secondary special provision does not correspond to mainstream. It continues the 'typing' of education according to impairment and 'the years in special secondary education rarely coincide with the years in mainstream secondary education' (http://www.and.vlaanderen.be/publicaties/2005). Pupils with Type 8 disabilities (complex and multiple impairments) are an exception, since no secondary education is available for this group. In spite of segregated and highly categorised provision, some pupils with SEN succeed in gaining admittance to mainstream secondary education through a system of integrated education, whereby 'experts' from special education offer support to the mainstream setting.

Progression and transitions
Progress is based on stage rather than age. The Ministry of Education website indicates that *a pupil passes on to the next 'learning stage' when he/she is ready for this.* At the end of mainstream primary education, pupils receive a certificate of primary education. In certain cases, pupils in special primary education can receive an equivalent certificate. After successfully completing six years of general, technical or arts secondary education, or seven years of vocational education, a pupil will be awarded the certificate of secondary education. From the age of 15 or 16, pupils can transfer to part-time education which may be a vocational training course.

Pedagogies

Ghesquiere et al (2002) researched early developments in including pupils with SEN in mainstream primary schools. They reported that teachers' articulated commitment to inclusion was not reflected in the development of appropriate classroom methodologies. Specific adaptations were made to accommodate pupils with physical and sensory impairments but pupils with learning difficulties were viewed as unsuited to mainstream schooling. 'Intellectual capacities' constituted the main criterion operated by teachers in judging the appropriateness of an inclusive placement:

> The gap between the capacities of the pupil with special educational needs and those of other pupils in the same group must not be too large. The pupil should to a certain extent be able to follow the regular classroom curriculum (Ghesquiere et al, 2002: 51).

Teacher education

Preparation in initial teacher education includes general information and basic knowledge about SEN. In the final year of ITE, students receive practical training. Additional training is optional but special schools would wish their staff to undertake this supplementary training early in their careers. Training is very practical and includes knowledge about teaching techniques, curricular adaptations, knowledge about particular disabilities (sensory impairments, intellectual disabilities, etc.) and specific techniques such as sign language.

Summary and discussion

- Flemish Belgium has a relatively large special school system, which specifies eight different types of special provision.

- Children are identified as having one of these eight categories of difficulty and are allocated on the basis of medical and psychological assessments to an appropriate type of special provision.

- The geography and population density of Flemish Belgium lends itself to the maintenance of a large number of different types of special schools, with transport relatively easily arranged.

- Funding mechanisms operate to re-inforce the special school sector, with little additional funding available in mainstream schools.

- The focus on tightly specified curricula within a selective school system also reinforces the separation of the special sector, as does the new emphasis on national standards and testing.

- The underlying ethos is that the child with special needs should fit into the mainstream school or seek alternative provision. The idea that teachers should differentiate curricula and pedagogy to meet the child's needs is not accepted.

- Specialist teachers are trained to work in the eight different types of special provision.

Flemish Belgium has begun to move slowly in the direction of inclusion, although there are many organisational features which mitigate against significant change (EADSNE, 2003:11). As in other countries with extensive segregated provision, inclusion is seen as a threat to special education. In terms of provision in mainstream schools, there is a tradition of transferring 'problems' to the special school system where the expertise in curricula for special needs and in special pedagogies is seen to lie by both special and mainstream teachers.

Curricula based upon categories of disability or types of SEN conflate learning difficulties and disabilities. Florian and Hegarty (2004) challenge the assumption implicit in this way of organising learning and teaching:

> One should not assume that disabilities and learning difficulties are concurrent. Nor are they synonymous terms. Many people are disabled by an impairment but they may not be *handicapped* by the condition. (Florian and Hegarty, 2004: 1)

Educational thinking in Flemish Belgium appears to be strongly rooted still in a medical model of disability.

Greece

Background
Greece is a small country at the southern end of the Balkans incorporating over 2,000 islands. Its population is just over 10.5 million, concentrated in Athens with a low population density in mountainous rural areas. Tourism is a very important part of the economy, accounting for 15% of GDP, and there is a large public sector. Greece joined the EU in 1981 and, compared with other euro-zone economies, remains a relatively poor country. Immigrants, many from countries such as Albania and the former Yugoslavia, make up nearly one-fifth of the work force, mainly employed in menial jobs. Greece is a major beneficiary of EU aid, equal to about 3.3% of annual GDP.

The compulsory age for school attendance is from 6 to 15 years old, and in 2003 the total number of compulsory school aged pupils (including those with SEN) was 1,439,411. Ninety three per cent of children attend state schools, and all provision for children identified as having special educational needs is in the state sector. In 1999/2000, approximately 0.9% of state school pupils were identified as having special educational needs, although this proportion has recently increased to nearer 2%. The majority of these children are in mainstream schools. Among the small proportion of children in special settings are those who are reported to be hard to include, such as pupils with mental handicap, autism and multiple disabilities. Pupils with SEN may attend inclusion classes in mainstream schools for up to ten hours per week, with the support of the special education teacher. A small proportion of pupils are in special clinical provision due to multiple disabilities and are outwith the curricular frameworks.

Historical Development and Legislation
The history of special needs education in Greece dates back to the beginnings of the twentieth century, when provision was largely charity-based and patchy (Didaskalou and Vlachou, 2004). Some state provision began in the 1930s when the first mainly residential and city-based institutes for children with special needs were established in Greece under the Ministry of National Health and Social Welfare. In 1972 and 1973, the first 43 state-run special primary schools for 'mentally retarded' children were established in large cities. In 1985, an 'integration' policy was signalled by the implementation of special classes in mainstream primary schools. According to Vlachou (2004), Greece has moved from the establishment of special schools to the espousal of inclusion (prompted by the EU) over a short period of time, a developmental process which took place over a much longer timeframe in countries such as England. This has led to some degree of confusion with regard to underlying principles.

Tensions between inclusion and special provision are also evident in relation to teacher education, where all trainee teachers are required to follow courses in meeting special educational needs, whilst the Maraslion Institute at Athens University offers a two-year course to retrain primary teachers in special needs education. There has been considerable development of university special needs departments over recent years. In addition, a Special Needs Education Directorate has been established to oversee all matters relating to SEN, as well as 13 Special Education School Advisors to coordinate, supervise and monitor SEN provision in their area.

As noted above, Greece identifies a low proportion of children as having special educational needs, and of these the majority are educated in mainstream settings. Low rates of identification may reflect cultural fears of disability, with some parents simply keeping their children at home rather than seeking any education for them. Didaskalou and Vlachou (2004) have questioned the accuracy of official SEN statistics, and note that a significant and unknown number of children with special educational needs do not attend school. In the

1970s, a series of scandals concerning residential institutions prompted a national debate on treatment of disabled people. In one particularly notorious case, a 'school' for children with learning disabilities on the island of Laros was found to keep inmates chained to their beds for large periods of the day, with little education or stimulation. Partly as a result of pressure from the EU, a number of such residential institutions were closed, and efforts were made to develop better provision in a range of settings. However, provision for children with special educational needs remains under-developed and under-funded (Vlachou, 1997).

Tensions between inclusion and special provision are evident in the raft of legislation which has been passed over recent years. Law 1143/1981 set up special units of care for children and parents, Law 1566/1985 instituted the principle of integration, and Law 2817/2000 updated the institutional framework of special needs education. In 2000 a dedicated Special Education Law (L2817/2000) established 54 Diagnostic, Assessment and Consultative Support Centres in the capital cities of each Greek prefecture. This law classifies special educational needs into six categories and stipulates the common objectives for all pupils in primary, secondary and vocational education. In order to achieve these objectives the state officially guarantees educational support and services for people with special needs until their twenty second year, although Didaskalou and Vlachou maintain that only a small proportion of children with special educational needs receive any additional support.

Similar broad objectives are adhered to for children with SEN in mainstream and special settings. These are to help pupils: 'develop their personality; improve their abilities and skills so that they are able to be included or re-included in mainstream education and social life; provide vocational training and facilitate their participation in productive life; promote their acceptance by society and their social development on equal terms.' (Law 2817/2000, Article 1). However, the system remains tightly controlled from the centre and there is little opportunity for recognition of individual pupil difference. Rather, the emphasis is on normalisation, so that the pupils with special educational needs are encouraged to conform to the behaviour and expectations of the non-disabled majority.

More recent legislation (M.D G6/102357/10.10.02) gives parents the right to choose the appropriate school for their child following appropriate diagnostic procedures and the formulation of an Individual Education Plan. Whilst in theory parents have a very wide degree of choice, in practice children with the most significant difficulties are rarely included in mainstream settings. Law 3194/2003 seeks to further develop special programmes and teaching methods, as well as requiring improvements in the availability of specialist materials, aids and services (European Agency, 2003c).

Defining special educational needs
According to Law 2817/2000, students with special educational needs must be placed within one of the following categories:

- Mental retardation
- Severe visual or hearing impairment
- Severe neurological or orthopaedic impairment or severe health problems
- Speech and communication difficulties
- Specific learning disabilities such as dyslexia, etc
- Severe cognitive, emotional and social difficulties, autism and developmental disorders

It is also recognised that children may have special educational needs which may be transient or enduring and which do not fall into one of the above categories.

Data published in 2003 by the Ministry of Education and the Educational Institute on the distribution of special needs indicate that over 50% of pupils with SEN have specific learning difficulties. Other types of SEN are far fewer in number (on average less than 10% of the total) include mild learning difficulties, autism, neurological problems, emotional and behavioural difficulties and sensory problems. Mirroring a finding across many national contexts (OECD, 2005), the number of boys registered as having special educational needs consistently outnumbers that of girls by a ratio of three to two. This discrepancy is most marked for autistic spectrum disorders, emotional and behavioural difficulties, and learning

difficulties. It is the least marked for hearing impairments. Also following a trend observed in other countries, the vast majority of special SEN placements occur during the course of primary education, and the majority of such pupils are identified as having 'mental retardation' (Meijer, 1999).

Assessment of special educational needs
The instruments used for detection and evaluation of students' special educational needs are approved by the Ministry of Education and there is still quite a strong reliance on psycho-metric testing. The most severe congenital disabilities are usually identified in the first instance by doctors or other health service professionals. Early intervention programmes are then recommended to families if deemed appropriate, although these are not compulsory. If the family agrees to such a programme, support services work out appropriate assessment for the child, with the aid of SEN diagnostic centres.

Most special educational needs are identified by the child's parents or teachers during pre-school or the first primary school years. To further ensure early diagnosis SEN diagnostic centres run a screening test system for the entire pupil population at the beginning of each school year. The diagnostic tests contribute to decisions on the most appropriate placement for the child. The pupil's teacher designs an Individualised Educational Programme (IEP), plans its implementation and makes arrangements for ongoing evaluation. Based on the IEP, appropriate technical aids and educational materials are then supplied. Counselling and support for families can be provided by professionals working with the pupils and psychologists from the Diagnostic Assessment and Support Centres.

Organisation of special needs education
As outlined above, legislation passed in 2000 stipulates three principal forms of special educational provision: special schools, special classes or units, or full integration in mainstream classes. There are about 200 special schools (37 nursery and 138 primary), 11 special schools providing general secondary education and four technical and vocational schools. Additionally, around 660 special classes or units operate across the country (European Agency, 2003c). Many pupils with special educational needs in mainstream schools are withdrawn from the mainstream class for individual or group support.

Official discourse identifies inclusion as a guiding principle in Greek special education. However, as noted above, tensions remain between principles and practices. For example, 'inclusion groups' (special classes) in mainstream schools are seen as the natural place for many children with special educational needs. Individual pedagogical support is officially provided through IEPs and compensatory programmes. However, teachers' commitment to inclusion is seen as a problem (Didaskalou and Vlachou, 2004).

Funding
The state finances both mainstream and special education (either special schools or special units in mainstream schools) through a traditional bureaucratic system. The Ministry of the Interior allocates funds to prefectures (regions) on a three-monthly basis. The Prefecture Council of Education then distributes funds according to the decisions of the Director of Education and the Education Committees of each Prefecture. Finally funds are allocated to school committees, made up of teachers and the head teacher, who are responsible for operational expenditure at school level. Special education falls under the same overall central state funding mechanism. Certain expenses (special schools and units, additional staff, technical equipment and so forth) are devolved to the local level, allocated from the budget of each prefectural (regional) government. Despite the growth of delegation, the central control of the curriculum and pedagogy means that the head teacher may not have much autonomy to develop working practices likely to promote inclusion and equity (Didaskalou and Vlachou, 2004).

Curriculum and assessment
There is a high level of central control in Greece, with schools operating a highly specified national curriculum, the same instructional guidelines, centrally-distributed textbooks and a common timetable. It has been suggested that the Minister of Education can be confident that

he can know what each student in Greece is studying at any time of the school day (Damanakis, 1994; Didaskalou and Vlachou, 2006)

Didaskalou and Vlachou (2006: 9) note that this uniformity may have been helpful in attempting to modernise the Greek education system but that it has also militated against the development of inclusive schools. The lack of flexibility in the system has made it very difficult for local authorities, schools and teachers to negotiate educational processes and outcomes to meet the diverse needs of pupils. Legal frameworks have provided the formal structures for inclusive schools but rigid and sometimes bureaucratic systems have left little space for the pursuit of innovative and inclusive classroom practices.

The curriculum has been very academic and subject specific. For example, personal and social development has not been a feature of the Greek curriculum although an increased number of pupils are reported to be experiencing social problems. Assessment emphasises skills and fragmented knowledge retrieval. Its purpose is to stimulate academic performance, competition amongst peers and to provide information for parents based upon their child's normative performance. (Flouris, 1995; Didaskalou and Vlachou, 2006).

Progression and transitions
One of the difficulties in pursuing inclusion in Greece in the wake of the inclusion law (Greek Ministry of Education, 2817/2000) has been the lack of material adapting the national curriculum for pupils with additional or special educational needs (EADSNE, 2001: 56). IEPs are the main mechanism for ensuring appropriate curricular progression and these are established from the early stages of kindergarten onwards. However, teachers have little time to plan and evaluate individual provision within a rigid and highly centralised system. There is also a lack of expertise available to mainstream teachers.

Pedagogies
In mainstream classes, the special education teacher provides one-to-one support, facilitates interactions between pupils, offers practical help, participates in the activities of the class and supports pupils to participate during break times and in school events and activities. Pupils with behaviour problems have proved most difficult to teach as mainstream teachers are unfamiliar with behaviourist techniques for managing classroom behaviour (EADSNE, 2001). Didaskalou and Millward (2001) criticise this approach to dealing with rising indiscipline, arguing that:

> Not only does a reliance on these teaching techniques oversimplify the nature of behaviour difficulties, but there is also a danger that so many apparent solutions close down the opportunities for teachers to think more positively about alternative ways of responding to problems (Didaskalou and Millward, 2001: 296)

However, a number of commentators (Kouloubaritsi & Kavouri, 1994; Vlachou-balafouti; 2001; Didaskalou and Vlachou, 2006) report that curriculum prescription and overload, resource deficiencies and teacher resistance to change have resulted in highly didactic pedagogies, lack of differentiation and no opportunities for pupil collaboration. Recent proposals for reform have tried to promote a more child-centred approach to teaching and learning emphasising participation, active learning, creativity, experimentation and cooperation (Didaskalou and Vlachou, 2006). Policy reform supports these pedagogical changes by decreasing centralised control and, instead, pursuing quality through the closer evaluation of school and teacher performance (Didaskalou and Millward, 2001:209)

Teacher education
In Greece, there are no central standards or regulations articulated for initial teacher education. Each university determines its own qualifying programmes. However, ITE usually includes some input on SEN/ learning difficulties and visits to special schools. Five years of teaching experience is needed before teachers can apply to do specialist training in SEN. This is a thorough two-year programme and is aimed at primary teachers. Many of these teachers have a postgraduate degree in SEN. Secondary teachers can do a forty-hour course which provides them with general information about SEN and some secondary SEN teachers also have a postgraduate degree in SEN.

EADSNE (2001) indicates that there is a shortage of properly trained SEN teachers affecting the support available to mainstream teachers working in inclusive classrooms. Ordinary teachers, it is reported (EADSNE: 2001: 56), have great difficulty in implementing the IEP. The problem is particularly acute in rural areas. Universities offer a one-year course to teachers seeking to become special education teachers.

Summary and discussion

- Greece identifies a relatively low proportion of pupils as having special educational needs and the majority are educated in mainstream schools.
- A categorical system is used to assess and identify special educational needs.
- There is an official commitment to inclusion, but to some extent this reflects a historical neglect of children with special educational needs, many of whom in the past were either kept at home or sent to residential institutions.
- In mainstream schools, the curriculum and teaching materials are tightly specified and controlled from the centre. However, within the classroom teachers have considerable autonomy and national assessment systems have not been introduced.
- There is little evidence that Greek teachers are developing differentiated teaching materials and approaches; rather, the emphasis is on the individual pupils with special educational needs meeting the same standards as other pupils.
- There appears to be a shortage of teachers with specialist knowledge and skills in relation to special educational needs, although there are currently moves to further develop university special education departments.

Didaskalou and Vlachou (2006: 2) note that school inclusion in Greece is conceptualised still as the assimilation of the individual pupil rather than, as they detect in other Western education systems, a function of overall school improvement. The education system is characterised by a high level of central control, over, for example, the curriculum whilst the state exercises very little control over 'internal school affairs' such as classroom organisation, teacher accountability, pupil testing and evaluation of school effectiveness. Schools do not have whole-school policies, nor the capacity to respond effectively to pupil characteristics and local factors. Attempts to develop classroom approaches more likely to support inclusion have been hindered by traditional ways of working whereby the class is treated as a homogeneous group, 'ability' is the most valued of pupil attributes and class teachers are untrained and unwilling to embrace difference:

> From this perspective, children are valued not on the basis of their difference, and who they are, but rather on their struggle to become the same as the majority of the other children: to become as 'normal as possible' or to be viewed as normal (Didaskalou and Vlachou, 2006: 11)

Sweden

Background

Sweden is a medium size country, with just over nine million people. A fifth of the population comprises first or second generation immigrants (mainly Finns, Yugoslavs, Danes, Norwegians, Greeks, and Turks), alongside the indigenous minority Sami community (Lapps), for whom separate educational provision is available.

The country is divided into 25 counties (Lan) with 21 county councils (Landsting), each comprising several municipalities (making up a total of 290). In education and other policy matters, legal frameworks are established by the central government, with central agencies jointly responsible for their administration. Over the last 30 years decentralisation has been a

prominent characteristic of the Swedish state and its mode of educational governance in particular (Lundahl, 2002).

Sweden has a mixed economy combining high-technology capitalism with extensive welfare benefits. The country's post-war economic success was challenged in the 1990s by high unemployment and in 2000-2002 by a downturn in the global economy, however there has since been an economic upturn (CIA, 2006). Sweden has high literacy levels; figures for 2003 estimate 99% adult literacy (CIA, 2006). Universal free education has played a key role in Sweden's post-war social policy.

Policy implementation and evaluation as well as the supervision of schools is the responsibility of The National Agency for Education. Since 2003, the National Agency for School Development is responsible for educational development in municipalities and in the school system (Persson, 2006: 3). The period of compulsory schooling in Sweden is from 7 to 16 years, and prior to this children may attend day-care centres which are run either privately or by municipalities. Attendance is voluntary, although since 1998 such schools have been included in the National Curriculum. Municipalities are obliged to provide pre-school places for children from 6 yrs but take-up of those places is not compulsory. The comprehensive school (grundskola) comprises nine grades. Special schools offer a 10-year programme for pupils who are deaf or hard of hearing and special programmes are also available for pupils with severe learning disabilities, emphasising basic social skills. Upper secondary education takes place in gymnasieskolan and is not compulsory, although the vast majority of pupils stay for an additional three years after the end of compulsory schooling (Skolverket, 2006). Upper secondary education is divided into 17 programmes. For pupils with learning difficulties, four year programmes are sometimes available (although these may be difficult to access), with a focus on vocational training or the development of literacy and numeracy.

Parental choice has been increasingly encouraged since the early 1990s, with funding following the student (European Agency, 2005). Thus, for example, parents may choose to use this funding to send their child to an independent school. However, should a parent choose not to send their child to a school designated by their municipality, then the authority is not obliged to cover transportation costs. Parental choice is more limited when it comes to disabled pupils, when local authorities may impose restrictions on the basis of a school's capacity to cater for the child's needs (Rädda Barnen (2004).

The Swedish Institute for Special Education (www.sit.se/) has responsibility for providing advice and support to national and local government and schools in relation to SEN policy, curriculum and teacher supply. The Swedish system includes a decreasing number of Sami schools (sarskolen) for pupils with learning disabilities, as well as programmes to support pupils with SEN in mainstream schools. Persson (2006) suggests that the government may wish to abolish such schools altogether. Former special schools are developing as resource centres to support inclusion in mainstream. Support is mainly provided by a specialist teacher working as a member of the mainstream school staff. Municipalities are responsible for ensuring that necessary expertise is available and may request support from the Swedish Institute for Special Needs Education (EADSNE, 2003).

In 2003 the total number of compulsory school aged pupils (including those with SENs) was 1,057,225, of whom approximately 2% are registered as having special educational needs. The number of pupils in segregated special educational settings is relatively low (1.3%), reflecting the commitment to inclusion. However, there is a lack of reliable statistics on pupils with SEN who are fully included in mainstream classes, as is reflected in the OECD cross-national survey (OECD, 2005). This is a reflection of Sweden's policy of educational integration and a desire to avoid, wherever possible, categorising people on the basis of disabilities (Persson, 2004). Consequently, the only figures available are for pupils in segregated settings, or for pupils identified as having one of a limited set of medical conditions. Moreover, the figure for pupils in special schools has officially fallen since 2001, when all special schools, except for those providing sign language education, were redesignated special needs resource centres, and their pupils counted as attending mainstream schools. A telephone interviewee suggested that in reality there had been an increase in the proportion of pupils in special settings (about 1.6% of the total school

population) because of difficulties in obtaining additional resources in mainstream settings. (Data source: Database of the Swedish National Agency for Education (http://www.skolverket.se)).

As noted above, since the School Funding Act was implemented in 1992, independent schools within compulsory and upper secondary stages have been established. The percentage of pupils in such schools, which are non-fee paying, is now approximately three per cent (Estia, 2006). The number of private schools at compulsory level has more than doubled, and overall about 10% of all schools have this status. Nearly half of the independent schools have a specific pedagogical orientation, such as the Montessori or Rudolf Steiner methods; others are denominational, cater for children with special educational needs or have a more general pedagogical approach.

Historical development and legislation
Education in Sweden has traditionally been organised within the public sector, with a highly centralised regime of governance. Through legislation, regulations and specified curricula, the state issued detailed instructions and rules on educational activities and the allocation of funds (Estia, 2003). More recently, however, the education system has undergone reforms that have led to a change in the role of the state, with far more delegation of decision-making to the local level. For example, the state leaves decisions on the allocation of additional resources to municipalities and schools, and there is no guarantee that a child with special educational needs in a mainstream setting will attract additional funding. As a result, some mainstream schools have become increasingly reluctant to accept some children with special educational needs.

The development of a comprehensive system of education under the guiding principle of a 'school for all' (Persson, 2000) was a central pillar in Sweden's efforts to shape a welfare system founded on democratic representation, social redistribution, and the public provision of services. For this reason equal educational opportunities were viewed as an essential element of democratic rights. In 1962, the 9-year co-educational comprehensive school was introduced and in 1970, vocational and academic programmes were brought under the provision of a single institution (Gymnasieskolan). These reforms were designed to remove the inequalities of class, gender and region thought to arise from the divisions of the former divided school system (Lundahl, 2002). Strong central leadership and control over education was seen to be a crucial mechanism for guaranteeing such outcomes. This central state control included tight regulations and checks over the form and content of schooling by the National Agency for Education (Skolverket).

Over the last 25 years, the education system has undergone a series of political and structural reforms that have progressively undermined the traditionally strong regulatory role of the central state, emphasising instead local decision-making, competition, and individual choice. These reforms arose partly from political pressures, including the political dominance of right-wing parties during the 1990s, which promoted a neoliberal market-based agenda in education. This was followed by a return towards the end of the decade to more centralised controls in an attempt to secure greater social inclusion and equality of experience across what had become a very decentralised system. Indeed, over the course of a few years Sweden went from having one of the most centralised to one of the most decentralised education systems in the Western world (OECD, 1998, cited in Lundahl, 2002). This decade also saw a small but steady increase in the number of pupils attending special schools, rising to just over 50% of all pupils with SEN. The legacy of these educational reforms is a model of governance employing central steering through target-setting and audit, alongside decentralised responsibilities for delivery mechanisms.

The national framework for education is set out in the 1985 Swedish Education Act and in a number of ordinances. A fundamental principle of this act is that all children and young people shall have the right of equal access to education, regardless of gender, geographical location or socioeconomic and cultural background. The Act goes on to state that education shall 'provide the pupils with knowledge and, in co-operation with the homes, promote their harmonious development into responsible human beings and members of the community.' It

also stipulates that consideration shall also be given to students with special needs (Skolverket, 2006).

Defining and assessing special educational needs
As noted earlier, Sweden generally adopts an anti-categorisation approach to special educational needs and is opposed to the use of medical categories for educational purposes. An exception here is that children who are deaf or hearing impaired are recognised as a separate group and may have the option of attending a special school for the Deaf. Despite the dislike of categories, Hjorne and Saljo (2004) note that there has been a marked increase in the identification of some types of impairment, in particular attention deficit/hyperactive disorder. Children with ADHD are increasingly educated in special classes in mainstream schools. However, there is scepticism about the robustness of the ADHD category and identification techniques are seen as highly subjective and dependent on professional judgement. Given the reluctance to categorise children, psychometric assessment techniques are not widely used.

Curriculum and assessment
The National Curriculum in Sweden applies to all pupils and it offers a very loose framework of goals, values and broad areas of activity. The Education Act (SFS 1985:1100) requires each municipality to design a plan for its schools to ensure that national targets are met, and to monitor and evaluate the implementation of that plan. Within that local framework, schools establish their own plans:

> Each school is accordingly bound by national goals and leading values, but is free to organise the means to reach those goals as it pleases. ….This leaves a free choice concerning use of staff, grouping of pupils according to age and levels and to large extent the content of subjects. (EADSNE, 2003)

Responsibility lies with the school to ensure that children make progress towards curricular goals. The law requires that, where needed, special support be first provided within the ordinary classroom. However, a further clause allows such support to be given in a special educational group. Tinglev (2001) writing in the EADSNE report indicates that there is a gap between curriculum policy and school practices. In the latest version of the National Curriculum (Lpo 94) the term *special education* has disappeared and it is advocated that all teachers in the school should be capable of helping pupils in need of special support. However, in practice, special education in small groups outside the ordinary classroom still exists and such groups are a standing feature of school organisation (Tinglev, 2001). Persson (1995) indicates that special provision is used whenever classroom provision is not good enough to provide for all pupils.

Pupils' rights to pursue the goals of the national curriculum are assisted by IEPs which make clear what is to be done, how it is to be done and who is responsible for work and activities. The plan is evaluated on an ongoing basis. Preferably, the IEP would be implemented in ordinary classrooms but it would often be pursued in a special group setting.

Progression and transitions
Pupils' progress is measured through a system of nationally-specified goals some of which are open-ended and others which are linked to attainment. Official assessment takes place at two points in schooling, Year 5 (12 years approximately) and Year 9 (16 years approximately). Passes are awarded on a three-point scale: pass, pass with distinction and pass with special distinction. Persson (2006) records that many schools report difficulty, with high proportions of students failing to reach the required standards. The National Agency for Education (Skolverket, 2002) noted that in 2001, 25.7% of school leavers did not reach the minimum pass grade in one or more subject. For students form ethnic backgrounds, the figure is 38.7% (Persson, 2006: 5).

After compulsory education, most students would continue to an upper secondary schools programme. Students with SEN would also undertake one of these programmes. Where the goals of compulsory education had not been achieved, students would undertake an individualised study plan and it is possible to combine this with employment. National

programmes in tourism, trade, industry and the arts are available in the upper secondary phase for students with severe learning difficulties. (EADSNE, 2003)

Pedagogies
Because of the devolved nature of the curriculum in Sweden, provision for SEN can take a variety of forms which may include the following:

- mainstream teachers of the pupil consult with a specialist teacher
- a specialist teacher or assistant works in the classroom with the teacher and/or the pupil within the framework of the ordinary lesson
- the pupil receives adapted teaching materials
- the pupil works in a group of pupils with similar needs for longer or shorter periods
- the pupil works with a specialist teacher for limited periods of time.

Teachers in mainstream are supported by local resource centres which can draw on support from the National Institute for Special Needs.

Teacher education
In initial teacher education, SEN is a priority area which permeates aspects of general programmes. In addition, students can take further specialised options in SEN. In-service training is compulsory for teachers and courses available in SEN offer support on working with pupils with particular needs and on classroom strategies for inclusion.

Summary and discussion

- Sweden has a long-standing commitment to inclusion and the dispersed nature of the population in many rural areas has always made the establishment of a large number of special schools impractical.

- A non-categorical approach has been adopted and statistics are not available on children with particular types of impairment in specific settings, although data are collected on the number of children in special schools.

- Most children attend comprehensive schools which are non-selective, but selection takes place at upper secondary level, where children with special educational needs tend to do individualised programmes in schools designated to support this type of learning. At this level they are generally not included in institutions specialising in science, social science and arts.

- Following neo-liberal reforms of the 1990s, Sweden moved rapidly from a very centralised to a far more decentralised educational system.

- Funds are delegated from central government to municipalities and schools, with no system in place to ensure that additional resources are available to support children with special needs in mainstream settings. This has created pressure to place more children in special schools, reflected in official statistics.

- Initial teacher education and post-graduate programmes include training on inclusive education strategies, but in practice there is little evidence of teachers' preparedness and/or capacity to mediate the curriculum for a diverse range of pupils.

- There is evidence, however, that teachers are reluctant to develop differentiated teaching materials and approaches.

- Although all pupils are covered by a single curriculum framework, there is little connection between the learning experiences of pupils with SEN and pupils more generally.

The view emerging from Swedish research is that little has been done to investigate and develop pedagogies for inclusive classrooms (EADSNE, 2001, Persson, 2006). Schools and teachers were reported as having very little idea about how to work with a diverse range of pupils and as relying still on special educators to 'fix' problems. There was little connection between ordinary education and special education, even though both were framed by the same curriculum. In the EADSNE (2001) report, Tinglev criticises Swedish education for failing to pursue classroom processes which were interactive, collaborative and reflective. Teachers worked too much alone and did not make best use of the special support available. Teaching methods tended to treat pupils as passive.

Persson (2006: 12) criticises the impact of the goal- and results-orientated assessment systems which were introduced in the early 1990s. He argues that attainment targets have marginalised the wider purposes of education and that pupils' curricular experience is therefore narrowed. In addition, the pass levels set are impossible to attain for some pupils even after extensive support:

> The attainment targets are static by nature and rest upon the idea that it is possible to describe, summarise and value to what degree each individual fulfils targets set beforehand. The system is built upon the false notion that every pupil has equal starting points or preconditions and that it is possible to use this notion as a basis for measuring the degree of a pupils' improvement or development. As children learn differently, and with different pace, the system does not take individual differences into account. Moreover, it seems almost impossible to formulate stable measures of what might be parameters representing pupils' ability to understand, function and work in a society the development of which is highly uncertain to predict (Persson, 2006: 12)

Ahlberg (1999) emphasised the central importance of highly skilled and adaptive teachers who were prepared to use an action research approach to their own practice. Teacher reflection was central to developing suitable pedagogies and it was assisted by cooperation between special education teachers and ordinary teachers. This cooperation included 'counselling' sessions where both teachers discussed what was happening in the classroom with a view to developing methods, content and groupings suitable for the whole class, as well as for pupils with additional or special educational needs. Hemmingsson et al (1999), looking at suitable classroom practices for pupils with physical disabilities, also emphasised the importance of teacher awareness of teaching styles and the extent to which particular styles created suitable learning opportunities. Tinglev (2000) found that the curriculum content was generally the same for all pupils but the differentiation came in the types of in-class support offered to pupils.

England

Background

England is by far the largest of the constituent countries of the UK, with more than 50 million people living mainly in urban areas. The population is very diverse particularly in London, and the 2001 census showed that more than 10% of people were from minority ethnic background, with a much higher proportion amongst younger people. This, of course, is unlikely to include people who do not have the requisite paperwork. In some London boroughs, more than 50% of the population is from a minority ethnic background and in some schools more than 50 languages may be spoken. This clearly represents a huge challenge for the school system. Like other parts of the UK, England has a highly developed education and social welfare system and high levels of literacy. In 1999/2000, about 3.2% of pupils were given a Statement of Needs, although a much higher proportion in mainstream schools were identified as having special educational needs. About 1.1% of children are in special settings.

Butler's 1944 Education Act raised the school-leaving age to 15 and provided universal free schooling in three different types of schools; grammar, secondary modern and technical. It was hoped that these schools would cater for the different academic levels and other aptitudes of children. Entry to these schools was based on the 11+ examination. A parallel system of special education developed alongside these schools, in some cases building on

existing institutions established by Victorian philanthropists to educate children with particular types of difficulty. Psychometric and medical tests were used to establish which pupils required education in special settings. Local authorities had a considerable degree of autonomy in deciding on the shape of the education system in their particular area. Comprehensive reorganisation took place in the 1970s, but this was extremely patchy compared with Scotland and Wales, and some local authorities retained their selective schools. The school leaving age was raised to 16 in 1976.

A wave of neo-liberal reforms, encapsulated in the Education Reform Act 1988, had a profound impact on education in the 1980s. These included the introduction of the national curriculum and assessment, local management of schools, school governing bodies and self-governing schools. The New Labour Government, elected in 1997, continued to promote the principles of New Public Management, characterised by an emphasis on audit, performance management and regulation, alongside an emphasis on social inclusion. There are ongoing debates about whether there are irreconcilable tensions between inclusion on the one hand and the pursuit of effectiveness and efficiency in public services on the other.

Historical development and legislation
Following the Warnock Report of 1978, the Education Act 1980 attempted to move to a non-categorical system of special needs identification, with an official focus on the identification of needs. A system was put in place to officially record these needs in a Statement of Needs, along with the local authority's plans to meet these needs. Over the years, case law established that Statements had to be reasonably explicit, for example, quantifying the hours of support to be provided by professionals such as speech and language therapists. Whilst the special school system continued, attended by about 1.5% of the total school population, the emphasis was on meeting the needs of a much wider group of children (up to 20% of the age group) in mainstream schools, supported by learning support teachers and classroom assistants. The proportion of children with a Statement of Need varied by local authority.

The Warnock report (DES, 1978) emphasised integration into mainstream schools, and the language of inclusion superseded that of integration. Some local authorities boasted that they had closed all their special schools (although all used some sort of special provision outwith the local authority, such as specialist provision for children with autistic spectrum disorder. There has recently been a reprise of the inclusion debate, with earlier champions of integration such as Mary Warnock suggesting that inclusion has been taken too far and some children would be better off in special schools. The Conservative Party appears to be making this a plank of its strategy to regain power in the Westminster Parliament.

Growing anxiety amongst parents over the quality of provision for children with special educational needs resulted in a raft of measures within the 1993 Education Act. This established the Special Educational Needs Code of Practice (DfEE, 1994), which set out mandatory procedures for identifying, assessing and providing for pupils with SEN. Parents also have the right to appeal to the Special Educational Needs Tribunal if they were dissatisfied with aspects of local authority provision and since 2002 the Special Educational Needs and Disability Tribunal has also dealt with cases of disability discrimination.

The revised Special Educational Needs Code of Practice (DfES, 2001) stipulates the responsibilities of the Special Educational Needs Coordinator (SENCO), a designated role in all schools, as overseeing provision for SEN, monitoring pupils' progress, liaising with parents and external agencies and supporting colleagues. Their role is complemented by the input of other professionals such as educational psychologists, social workers and health staff. There have recently been efforts to downplay the importance of Statements of Need as the gold standard to access additional resources, as this is seen as creating an invidious divide between children with and without the official document (Pinney, 2004). Local authorities now routinely issue 'notes in lieu of a Statement', although these do not have the same legal underpinning. Individualised Educational Plans and other less formal documents are also used to record children's difficulties and school strategies to address these difficulties. The DfES now publishes statistics on children with special educational needs with and without Statements. However, children with a Statement have stronger legal protection than children who do not.

The rights agenda associated with anti-discrimination legislation has become increasingly important in GB, with the Disability Discrimination Act 1995 (as amended) extended to education in 2001. Great Britain is still unusual in comparison with other European countries in having implemented comprehensive anti-discrimination legislation in this area.

Defining special educational needs
Whilst efforts have been made to abandon categorical approaches, the Statement of Need still includes a description of a child's difficulty in learning, and there appears to have been a return to the use of categories, with a growth in the identification of some conditions such as autism, attention deficit/hyperactive disorder and dyslexia. Croll and Moses (2003) point to the importance of subjective judgements by teachers and other professionals in defining SEN, a situation caused by the circular definition contained in the Code of Practice (DfEE, 1994). A child with special educational needs has 'a significantly greater difficulty than other children' or a 'disability which prevents or hinders…use of…educational facilities…in schools within…the LEA (Croll and Moses, 2003:732).

Assessment of special educational needs
Special Educational Needs Co-ordinators are charged with the implementation of a staged process of assessment, initially making use of observation in the classroom, followed finally by formal assessment by external professionals using a range of methods including psychometric assessment and other types of diagnostic test.

Funding
Local authorities retain responsibility for meeting the needs of children as specified in the Statement of Needs. However, as an ever-increasing proportion of the education budget is devolved to school level, there is a greater emphasis on schools deciding how to allocate their budget. Local authorities generally conduct an audit of the number of pupils with special educational needs in particular schools at the beginning of the school year, and distribute enhanced levels of funding accordingly. However, it is almost impossible to track these funds to ensure that they are being used in relation to the children for whom the additional resources were intended.

Curriculum and assessment
The National Curriculum in England applies to all pupils and is organised into Key Stages (KS) that correspond to ages: KS 1 – 7, KS2 – 11, KS 3 – 14, KS4 - 16. Pupils are assessed on national measures at the end of each Key Stage and test scores in English, maths and science are aggregated to give a points average. This points average is used to benchmark pupil attainment, to track individual pupil progress across time and to inform judgements about school and teacher effectiveness. Within this overall framework, 'P scales' are used to track progress prior to the achievement of level one within Key Stage 1. Pupils whose learning difficulties make progress very slow are thus graded against assessment criteria. IEP targets can be derived from these P scales and attainment can be demonstrated within the National Curriculum. However, caution has been sounded about the reliability of these scales as measures of school effectiveness (Florian et al, 2004:118). However, the SATs failed to provide meaningful assessment data for numbers of children with special educational needs. Many of those children had their progress recorded year after year as 'Working towards Level 1', masking the real progress which may have been made. In addition, comparisons of school effectiveness for this group were impossible.

The P scales were introduced in 1998 to remedy this situation (DfEE, 1998). The original framework provided descriptions of performance over eight levels of attainment in three curricular areas - English, mathematics and personal and social development (PSD) -leading up to national Curriculum Level 1. Descriptions were provided generically across subjects for the initial levels (P levels 1 – 3) and then subsequently specified for each attainment target in English and mathematics. Under the revised target-setting scheme (DfES, 2001), PSD was dropped and performance descriptions for science introduced. The performance descriptions were intended to be used in the same way as National Curriculum level descriptions, that is, teachers were asked to make rounded assessments of pupil performance, to apply a 'best fit' judgement (DfEE, 2001). New guidelines produced in 2005 by the Qualifications and

Curriculum Authority (QCA) confirm the P scales were to serve both summative and formative assessment purposes. Martin (2006:69) notes that P scales are intended to:

- support summative assessments, enabling staff to make and record judgements about pupils' attainments at the end of a year or a Key Stage;
- track individual pupils linear progress towards subject-specific attainment at national Curriculum Level 1 and beyond;
- identify and record individual pupils lateral progress by helping staff to look for related skills at similar levels across subjects;
- look for patterns in the attainment of pupils;
- provide information to school managers setting targets for whole-school improvement.

P scale data were collected from schools on a voluntary basis by the QCA in 2005 but, in 2006, the data will be collected as part of the national system for collecting Key Stage data (DfES, 2005). The way is then open for the data to be used to make comparisons of pupil progress, for example, in different schools and in different educational settings.

Martin (2006) discusses the experience of one school in using the P scales over a number of years. He identified difficulties arising from the performance descriptions within each level of the P scales. Pupils with severe learning difficulties were noted as making progress at less than one P level per year on average. The level descriptions were judged to be not sensitive enough to allow the identification of progress in any one year. Further, there was a lack of consistency in teacher's application of the performance descriptions and some pupils were assessed at a lower level than in the previous year. These drawbacks limited the value of the P scales as a means of tracking the progress of individual pupils and also for school-target-setting purposes. This particular school resolved these difficulties by further refining each level description into a four-point scale and by developing its own computer-based programme to facilitate the recording, collection and monitoring of data.

Florian et al (2004) note that the P scales have been useful as a planning tool, helping teachers to map out their aims for individual pupils:

> By providing differentiated outcomes for pupils who may not be expected to perform at normative levels within each key stage, these materials help to answer some of the concerns of practitioners and contribute to attempts to provide access to a common curriculum and assessment system for all children. (Florian et al, 2004:119)

The popularity of P scales with teachers is evidenced by the number of commercial software packages available, some of which have found their way into schools/units in Scotland where they are used in IEP target-setting. Less clear, however, is the value of P scales for quantifying individual pupil progress over time (Florian, 2004: 119), thus enabling an inclusive and comprehensive attainment data set for school comparison and improvement purposes.

One of the more contentious aspects of policy in England in relation to inclusion has been the use of attainment outcomes to monitor and judge school effectiveness. The practice of publishing overall pupil performance rates, by school, at the end of each key stage has impacted on the development of mainstream schools as suitable places for the education of pupils with SEN (Evans and Lunt, 2002; EADSNE, 2003). There continues to be a degree of uncertainty about whether pupils with SEN have to be included in reports of achievement, and, at least in the early stages of implementation, a formal system was put in place to decide for which pupils the national curriculum and assessment could be 'disapplied'. Commentators have noted the tension between the pressure for performance and effectivenss on the one hand and the pressure for inclusion on the other (Lunt and Norwich, 1999). Pupils with SEN may be seen, by parents and teachers, as attracting a large slice of school resources and as hindering the efficient organisation of learning and teaching. There is evidence that it is not just perceptions which have negative impact. OFSTED reported lower average rates of attainment for schools which had higher rates of inclusion. EADSNE notes that the wish to achieve higher outputs and to include pupils with SEN can become antithetical (EADSNE, 2003: 15).

Progression and transitions
A main focus of the literature is on transitions to post-school experience. In England and Wales, the DfES has established Connexions, a service to support young people into work, training and education from leaving school through to the age of nineteen. Dyson et al (2002) welcome the provision of transition supports beyond the point of leaving school but argue that the period covered by Connexions may still be too short - many young people were still experiencing turbulence post-nineteen. Particularly vulnerable were those 'disadvantaged' young people recognised as having additional or special educational needs within the school system but not manifesting a disability. Further, Dyson et al argue that the school system could better equip young people to make effective transitions by adopting resilience-building as an aspect of curriculum provision which would enable the post-school opportunities stimulated by Connexions to become more appropriate and coherent (Dyson et al, 2002:12). Writing in relation to pupils with severe learning difficulties, McConkey and Smith (2001) also underline the importance of teaching social competence in assisting with transition from school, along with support for families in conjunction with other agencies. They, too, see Connexions as a valuable method of providing a 'one-stop shop' through personal advisers who will assist school-leavers and their families to draw up a transition plan.

Pedagogies
Fletcher-Campbell, reviewing the UK literature in EADSNE (2001:101), reports that there is a dearth of rigorous studies evaluating classroom practice supporting inclusion and, further, that there is a tendency in the literature to see 'effective pedagogy' as effective for all pupils, regardless of their needs or of the particular context. This is not to argue that the basis for classroom provision should be 'types' of special educational needs. Studies of differences between pupils with and without SEN do not necessarily contribute to the development of appropriate classroom practices. Commentators draw attention to important intra-group differences within any area of SEN. Fletcher-Campbell (EADSNE 2001:101) points out that pupils with hearing impairment might have similar technical assessment and audiograms but very different abilities in lip-reading and in residual hearing.

Fletcher-Campbell (ibid.) reported on a policy initiative in England (DfEE, 1998) on literacy teaching for all pupils in primary classrooms. A discrete review (Fletcher-Campbell, 2000) considered the literature on the acquisition of literacy skills of pupils with severe SEN such as severe learning difficulties, hearing impairment, visual impairment and speech and communication difficulties. There was a dearth of material available and it was noted that the craft knowledge of teachers, rather than research findings, was the principal influence on teaching strategies.

In an influential study, Lewis and Norwich (2000) investigated whether pupils with SEN required special pedagogies. Their conclusion was that they do not. What was needed, they indicated, were different emphases within the ordinary curriculum, for example: more practice to achieve mastery, more examples to assist in the learning of concepts, more experience of transfer and more careful checking for readiness to move on to the next stage of learning. Commenting on this work, Fletcher-Campbell (2000) agrees that there were few groups who needed qualitatively different teaching but suggests that teachers have to be aware of the ways in which particular needs and learning styles would shape pupils' responses to the curriculum. By these accounts, the development of effective classroom practices rests not in the curriculum prescription but in teachers' understandings of differences and on their skills in mediating the curriculum for individual pupils. Lewis and Norwich (2000) suggest that in developing effective and inclusive classroom provision, the SEN categorisation of pupils is unhelpful. They suggest learning styles may be a more useful way of grouping pupils.

Differentiation of the curriculum
Differentiation of the curriculum is identified in the literature as the principal means of ensuring accessibility. Teacher skills in mediating the curriculum for individuals are viewed as crucial in developing effective pedagogies and Weston et al (1998) discuss a range of strategies which may be employed in different subject areas. For example, an English teacher might use a similar stimulus such as a poem, and invite children to respond to it in a variety of ways. In Maths, the complexity of problems set in relation to a particular topic may vary, with more able pupils being allocated extended tasks. However, teachers' competence in differentiation

may vary greatly (Lee and Henkhusen, 1996). Weston et al (1998), in a study of differentiation practices in primary and secondary schools, found that a range of practices were effective in including pupils with SEN, such as altering the format of the lesson, changing the arrangement of groups, changing the way in which instruction was delivered, adapting goals, using different materials, providing alternative tasks. In addition, approaches which supported the development of good social relationships in the classroom were seen as promoting effectiveness (Ainscow et al, 1996; Weston et al, 1998; Cullen and Fletcher-Campbell, 2000). Such approaches included carefully structured joint activities, opportunities for co-operation in classwork, altered classroom lay-out and organisation, systems for facilitating peer cooperation (e.g. peer-tutoring, buddying) (Weston et al, 1998).

Class/group organisation
There is conflicting evidence about the benefits of grouping by ability. Some would argue that it is an effective method of ensuring more targeted approaches to teaching; others cite negative impact on the self esteem of pupils in low groups and also a tendency on the part of teachers to assume homogeneity within ability groups and therefore a removal of the need to differentiate further. Grouping by ability thus is seen to motivate against the development of teachers' skills in differentiation. Quoting from a study by Weston et al (1998), EADSNE (2001) lists these as:

- skills of using evidence to analyse and evaluate individual performance;
- skills of curriculum planning and target-setting;
- pedagogic skills – making expertise explicit;
- skills in managing learning. (EADSNE, 2001: 104)

Differentiation comes through very strongly as a main means of supporting a diverse pupil group in the classroom. The study by Weston et al (1998) is helpful in defining differentiation as being centrally located in ongoing teaching behaviour, and not just in the paraphernalia of the curriculum, although differentiated tasks and materials may be helpful. By this account, differentiation is exactly the same as the formative assessment practices investigated and endorsed in the work of Paul Black and Dylan Wiliam (1998a, 1998ь, 2004). This body of research has been very influential on developing classroom assessment practices to support pupil progress, and nowhere more so than in Scotland where the Assessment is for Learning initiative seems to have had an impact on the quality of assessment/differentiation practices. The extended view of differentiation places great emphasis on the need for highly skilled, reflective and responsive teachers and there is evidence that more reflexive ways of working in classrooms may be supported by professional collaboration.

Classroom teamwork
An important aspect of the development of inclusive classroom provision has been the provision of teaching assistants (TAs). A number of studies (Lee and Henkhusens, 1996; Lorenz, 1998; Lacey, 2001) have found that effective and inclusive pedagogies were supported by a team approach in classrooms where teachers and teaching assistants worked together to support all children.

However, whilst recognising how important this strategy has been in promoting classroom inclusion, commentators also recognise the complexities of managing TAs in the classroom and the fact that teachers are untrained in managing classroom teams. In addition, there is a risk of increased learner dependency (Clarke et al, 1999; Groom and Rose, 2005). Cremin et al (2003) proposed a range of models of teacher/TA teamwork, all of which allow classroom teamwork to be conducted in a planned and managed way. Groom and Rose (2005) found that there was no single model of classroom teamwork that should be endorsed but that the aspects of the TA role that contributed to effective practice were:

- time for establishing individual positive relationships with pupils
- good listening skills
- working with pupils in class, in a one-to-one, and across contexts including lunchtimes/playgrounds
- qualities of fairness, patience and tolerance
- understanding of pupils' difficulties

- access to range of support strategies (Groom and Rose, 2003: 12)

The allocation of support to particular departments allowed greater scope for the planning of the curriculum in relation to individual needs. Time for this kind of focused planning was important to the effectiveness of classroom practices for pupils with SEN (Weston et al, 1998). In addition, Groom and Rose (3003) find that the training of TAs remains an issue in ensuring quality classroom provision.

Out-of class support

Croll and Moses (2003) found that schools provided support for pupils with SEN in a variety of ways which involved a combination of in-class and out-of-class help from a combination of class teacher, support teacher and learning support assistant:

> The debate over the desirability or otherwise of withdrawing children from the classroom for special help continues, and practice in schools is very varied, with the proportion of pupils withdrawn ranging from 5% to over 90%. Overall, about half of all children with SEN are withdrawn from the class for additional attention…..Three quarters of all children getting help received extra provision in reading and numeracy, with a minority getting help with numeracy. Support in other areas of the curriculum or for emotional and behavioural difficulties is much less common. (Croll and Moses, 2003:741).

In a study by Norwich and Kelly (2004:53), pupils themselves were surveyed about their experiences and attitudes towards support. Boys in secondary schools appeared to dislike any kind of additional attention either within or outwith the class. However, despite feeling rather conspicuous, pupils recognised that they could benefit from one-to-one tuition outside the classroom (Norwich and Kelly, 2004: 59).

Wider factors

The development of effective classroom practices for inclusion is noted by a number of commentators as relating to school development. In terms of influence, the school self-evaluation pack *Index for Inclusion* (Booth at al, 1999) is to the fore here. This pack sets out a number of strands in the development of inclusive schools. Those relating specifically to classroom practice are collaboration among pupils, the active involvement of pupils in their own learning, assessment which encourages the achievement of all pupils, and strategies to improve pupils' self-esteem.

Teacher education

Within ITE programmes, which are based on the acquisition of prescribed competences, there are elements of competence related to SEN. The Standard for Qualified Teacher Status sets out the minimum requirements which relate to knowing the procedures to be followed for identifying, assessing and meeting SEN in the mainstream classroom. Other than for specialist teachers of the deaf and the visually-impaired, further specialist training is not compulsory but many of those working in specialist and support roles opt to undertake additional training within postgraduate accredited programmes. Almost all teachers attend short inservice courses on aspects of providing for SEN.

Summary and discussion

- Since the early 1980s, England has moved from a categorical to a non-categorical system, with a growing emphasis on inclusion.

- There are clear tensions between those seeking an enhanced role for the special sector and those emphasising the benefits of inclusion.

- Difficulties in measuring the outcomes of schooling for pupils with SEN have resulted in a lack of evidence about the comparative performance of mainstream and special schools in supporting pupils with SEN (see below).

- England has a well regulated national system for identifying and meeting special educational needs, however, there is an increasing emphasis on schools and local authorities developing their own assessment and recording systems.

- Local authorities have traditionally had the responsibility for funding provision for children with Statements of Need in mainstream schools. However, as a growing proportion of funds are allocated to schools, they are able to make local decisions on the allocation of additional support.

- The emphasis on national assessment and the production of league tables means that schools may be reluctant to encourage applications from children with SEN, particularly those with cognitive and behavioural difficulties.

- P scales have been developed to support the structured progression of pupils working towards Level 1 of the National Curriculum.

- Use of P scales to assess individual pupil progress will enable the local and national collection of school data for accountability and school improvement purposes.

- Use of P scales as a curriculum planning tool for teachers is more established and has been judged to be helpful for teachers.

- The helpfulness of P scales increases when schools adapt and further refine them, although some difficulties remain.

- Effective pedagogies for inclusion are seen to rest not on curriculum prescription but on teachers' understandings of individual differences and on their skills in responding to those differences.

- Differentiation is seen as the principal mechanism underpinning effective inclusion, but it appears that teachers vary greatly in their skills in this area.

- Differentiation is conceptualised as being located in teacher approaches and as involving the same processes as formative assessment, such as, those endorsed by the AifL initiative in Scotland.

- Teaching assistants are playing an increasingly important role in the delivery of inclusive practices, and there are ongoing debates about their training and professional status.

- The training of specialist teaching staff has been somewhat ad hoc, apart from specific categories of student (deaf and visually impaired) where it is essential to have a specialist qualification.

There is a strong view that types of SEN should not be the basis for the organisation and management of the curriculum and pedagogy in mainstream or special provision. However, there is also a view that knowledge of particular conditions is necessary for teachers to organise learning appropriately. Is there a paradox here? These two positions are reconciled by constructing teaching as the key to effective provision for a diverse group of pupils. For individual learners, teachers mediate what is to be learned, on the basis of knowing those learners. The nature of the pupil's impairment and social circumstances are factors they would consider in developing effective teaching and learning strategies.

United States

Background
The US has a total population of more than 240 million people and a school population of approximately 55.5 million. Education is constitutionally a state responsibility, and the federal

government influences education through the provision of grant programmes. McLaughlin et al (2004) characterise the relationship between the US federal and state-level governments as 'dynamic and sometimes ambiguous'. Schools are controlled by local school districts, which have responsibility for the delivery of local educational services. Since the colonial period, there has been a strong emphasis on educational opportunity, with universal access to elementary and secondary education promoted since the 1950s.

As a very rich country, the US invests considerable resources in its education system with a view to building its knowledge economy, yet major inequalities in outcomes persist, often patterned along racial lines. A range of special provision exists outwith mainstream and as part of the mainstream school. An issue of continuing concern in the US has been the disproportionate representation of African American students in special education settings, specifically within the category of mental retardation (McLaughlin et al, 2004). Discrepancies in educational outcomes by state and ethnic group are carefully reported and monitored, yet tackling such disparities appears to be highly challenging and linked to wider issues of wealth distribution and the reluctance of the state to intervene in the operation of market-based systems.

Over recent years, there has been a focus on the 'standards based' agenda in the US, with federal government seeking evidence that funds spent on education are leading to improvements. Most states have school choice legislation, giving parents greater freedom to select the school which their child will attend. In addition, some states have introduced charter schools, which are self-governing rather than being controlled by the local school district. There have been anxieties about whether these neo-liberal reforms will lead to the further exclusion of children with special educational needs (Lange and Riddell, 2000).

A high proportion of children in the United States receives an Individual Education Plan (about 11.5%), which attracts funding from federal, state and school district levels. Most of these children are in mainstream schools, although there is also a significant special sector.

Historical development and legislation

Florian and Pullin (2000) note that over the past three decades, federal and state statutes, regulations and legal judgements have played a major part in the development of SEN policy and have been strongly influenced by disability activism drawing on the US's civil rights tradition. The Education for All Handicapped Children Act, passed in 1975, was amended in 1990 as the Individuals with Disabilities Act (IDEA), and was further amended in 1997 and 2004 to take account of 'whole-school' approaches to inclusion. Under this legislation, children with SEN have a legal right to have their needs assessed and recorded in an Individual Educational Plan, which includes a detailed record of what the school and the state propose to do to meet these needs. The US IEP is different from the similarly named document in England and Scotland, because its contents are legally enforceable. If parents believe that their child should have an IEP, or if they wish to challenge its contents or any aspects of its delivery, they may take their case to a federal court system to obtain enforcement of these legal rights.

In addition to the provisions of IDEA, which includes powerful anti-discrimination measures, disabled children also receive protection through federal disability discrimination legislation. There are two major pieces of legislation here. First, Section 504 of the Rehabilitation Act 1973 states that 'no otherwise qualified individual with a disability…. Shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance' (29 USC. S794(a))'. Secondly, the Americans with Disabilities Act (ADA) expressly prohibits public entities from 'providing different or separate aids, benefits or services to [persons with disabilities] that are not as effective as those provided to others' (28 USC.S35.130(d)). Title II places a similar duty on states, school districts and schools. Amongst other things, this legislation obliges schools to offer alternative or different assessment methods to students with disabilities.

Defining special educational needs

In order to be covered by federal law, a child must fulfil the following two criteria: they must have a defined disability and a need for special education because the disability has an adverse educational impact. The categories of disability covered by federal law since 1997 are the following: mental retardation; hearing impairments (including deafness; speech or language impairments; visual impairments (including blindness); serious emotional disturbance; orthopedic impairments; autism; traumatic brain injury; specific learning disabilities; and health impairments. IDEA does not require that children with disabilities are categorised under one or other of the categories of disability listed in the Act. Donovan and Cross (2002) note that individual states differ in the labels and criteria used to 'classify' children as eligible for special education services.

The definition of disability in the ADA has been described as 'constricted' and 'miserly' (Burgdorf, 2005). Individuals are only protected by the legislation if their disability leads to 'substantial limitation' in 'major life activities', leading to hypertechnical arguments about what is meant by each of these terms. According to Burgdorf (2005), beyond the field of education:

> It has caused considerable litigation on such issues as whether a person whose condition (e.g., epilepsy, diabetes) is controlled by medication is still a person with a disability (the Supreme Court says the answer is basically "no"); how long the process of a broken bone's healing has to take before it amounts to a disability; how many jobs a person's condition has to preclude her or him from before it constitutes a substantial limitation on employment; whether such activities as reproduction, reading, and running are or are not major life activities; and whether a person whose orthotic device enables a fairly normal range of functioning despite an amputation can be considered to have a disability.

Interestingly, similar debates have arisen with regard to categorisation in the fields of education and wider disability legislation. The defence of a highly categorised system rests on the argument that terms of inclusion and exclusion have to be clearly specified in order to ensure accountability for provision. There is not necessarily a commitment to categories for their own sake, and indeed the use of categories in relation to disability discrimination legislation in the US and GB has been challenged as irreconcilable with the social model of disability. Within educational legislation, it is argued that unless there is some restriction on who should have an IEP, then the category would become unmanageable. Clear understanding of who qualifies for additional resourcing is essential to assist in the specification of provision in the IEP and to help parents in ensuring proper follow-up. In the US, the big debates are not about whether or not there should be a category-based system but about identification, assessment, and the criteria to be applied in relation to each category.

Assessment of special educational needs

Following on from the tight categorisation system employed in the US, it is inevitable that a range of assessment practices will be used to establish who should be counted as falling within or outwith the terms of reference. Psycho-metric and medical assessments have considerable currency in the US, and special education professionals are trained in their administration.

IEPs in the US serve the combined function of the Statement of Needs and IEPs in England. They are legally binding and are drawn up by a multi-disciplinary team – the child's teacher and parent **must** be represented. When they are old enough, children, too, are involved. The rest of the team vary according to the category of SEN being considered. A point of difference with the English system is that the assessment process must take place within 45 days of its initiation. This is a very short timescale; the process in England is much more drawn out. As noted above, the IDEA specifies certain disability categories and requires that the disability impacts upon the individual's capacity to learn. Thus, the IEP assessment process has two purposes, that is, to establish:

- if the child has a disability
- if s/he needs special provision

For an IEP to be established, the answer has to be 'yes' to both questions.

As in Scotland (Kane et al, 2003), there are significant disparities between how IEPs are supposed to work and how they actually function. Whilst they are intended to be democratic documents, they tend to be written by the specialist teacher with minimal input from parents, pupils, other teachers. Once written, there is a danger that they 'gather dust in a drawer'.

Funding
As noted above, federal funds are made available to contribute to the costs of educating children with IEPs. In order to receive federal aid for special education, state and local educational agencies are required to provide free appropriate public education. Federal funding meets only a relatively small proportion of the cost of educating children with special educational needs (contributing about 7% of the total cost). Debates persist about the balance of funding which should come from the different levels (federal, state and school district), and there is often a discrepancy between what is recommended on the IEP and what is actually delivered (Bowers and Parrish, 2000). In addition, there are concerns about equity between groups of children with different categories of need, and between those who have an IEP and those who do not. Furthermore, it is argued that the funding regime in the US produced inflationary pressures, with increasing numbers of children crowding into the special educational needs category in order to benefit from the additional resources available. In 1995, almost 4.76 million children (10.45%) of the entire elementary and secondary school population in the US were receiving special education. By 2005, this had increased to 5.7 million (11.46%). About half of the students receiving special education were categorised as having specific learning disabilities.

Curriculum and assessment.
There is no national curriculum, but the effect of high-stakes assessment is leading to increasing similarity between states as to what is taught. However, standards vary considerably between states. Work is continuing on developing alternative assessment systems which include pupils with disabilities in overall assessment frameworks (see below).

Before the passage of the *No Child Left Behind* Act in 2002, children with special educational needs were excluded from state testing, but there are now obligations to demonstrate that all children are making progress. The accountability agenda therefore embraces all children, which may be seen as fair and equitable, or alternatively may be seen as extending regulation and surveillance to a sphere which had previously been free to operate in an untrammelled fashion.

Progression and transitions
Traditionally, IEPs provided the method of supporting the progress of pupils with disabilities but these could be constructed and pursued quite separately from the ordinary curriculum and outwith classrooms. Students with disabilities could be taught a collection of skills that were not linked to core academic content by teachers who were often not qualified to teach academic subject matter (McLaughlin et al, 2004). The advent of accountability agendas has changed this situation. The *No Child Left Behind* initiative has required major changes in the ways in which schools are held accountable for the attainment of students with disabilities. Student attainment and progress are now measured not just through the IEP but by external assessment and measures of school effectiveness are partly based upon the aggregate performance of students with disabilities. Thus, the attainment of this group of students is becoming much more visible. McLaughlin et al (2004) note:

> In the current climate of performance-based accountability, the traditional classification schemes seem meaningless. Schools are paying closer attention to 'achievement' labels than to traditional classification categories.

Pedagogies
The categorisation of students into specific sub-groups has given rise to an understanding that students within a specific category have common characteristics and educational needs which require particular pedagogies and curricula. It follows form this that teachers are seen to need specific and differential skills to provide these different pedagogies and curricula.

McLaughlin et al (2004: 12) note that research does not support this assumption. Rather, it reveals that 'the approaches, methods and techniques that teachers must use to meet the educational needs of students with differing disability labels vary more in terms of intensity than type'.

Teacher education

As a result of the No Child Left Behind Act and the 2004 amendments to IDEA, which call for teachers of children with disabilities to be 'highly qualified', there are currently major debates in the US about whether teachers have the necessary expertise to meet children's diverse needs. Compared with many European countries, the US has traditionally placed much more emphasis on specialist training of teachers. Student teachers start their specialist training in initial teacher education, not necessarily in relation to narrow categories of disability but more broadly, for example, in relation to high- or low-incidence disabilities; age; severity of disability or transitions. Each state sets the specialisms required of its teachers and universities would comply because teacher education programmes are validated by the state authority. Teachers employed as specialists must have the requisite qualification. Sometimes, when there is a shortage of teachers, it is possible to 'fast-track' to the qualification. All mainstream schools have specialist teacher(s) of children with disabilities, and one of the responsibilities is writing and reviewing IEPs. The advantage of the increased specialisation of teachers is better quality teaching for children with disabilities. One of the experts consulted for this review who knows both the UK and US systems believes that the quality of teaching for pupils with SEN in the UK is less good. However, the disadvantage is the maintenance of the view that special and different pedagogies are needed for pupils with disabilities; there is a tendency therefore to separate them out even within mainstream.

Summary and discussion

- There are strong parallels between the US and the UK systems of educating children with SEN, but also some fascinating differences. Policies are based on education and disability legislation.

- Like England, the majority of children with SEN in the US are in mainstream schools, but some specialist provision in separate institutions is also available.

- It is mandatory for all children with SEN in the US to have IEPs. These are legally binding documents, and if dissatisfied with their substance or implementation, parents may bring a case to the federal appeal court.

- A high proportion of children in the US have IEPs (more than 11%). A significant proportion of education funding, drawn from federal, state and school district levels, is spent on the education of children with special educational needs.

- A categorical system is used in the US to draw boundaries around who qualifies for an IEP.

- There are moves to include children with special educational needs in accountability regimes in most states. Because of the focus on individualised education, it is impossible to assess the progress made by children with special educational needs against normative standards. The new focus on standards is based on the idea that more objective measures should be used to assess progress, but, as in other countries, is contested.

- A high proportion of education funding in the US is raised at school district level, with the result that the education of children in poorer areas is less well resourced, despite attempts to redress this imbalance through special funding programmes at state and federal levels.

- Special education is highly developed in US universities and many teachers have specialist qualifications. This leads to more highly qualified professionals, but also

promotes the idea that children with special educational needs require special pedagogies.

- Special educational needs provision in the US exemplifies many of the dilemmas associated with rights based systems. In order to access relatively generous levels of additional funding, strict qualification criteria have to be met, which inevitably involve some arbitrary judgements about children at the margins. The dividing line between children with and without special educational needs reinforces the view that the former are fundamentally different from others, thus in undermining the inclusivity which other aspects of the system are attempting to promote.

- As in other cuntries

Summary and conclusion

The following main points emerge from a consideration of SEN legal and policy frameworks and educational provision in five countries:

- The five case study countries demonstrate contrasting approaches to the dilemma of inclusive versus specialist placement and curriculum provision, although in all countries there is a trend towards the development of more inclusive approaches.

- There is no clear view emerging from the literature as to which setting, mainstream or special, provides more positive outcomes for pupils.

- Comparisons of pupil outcomes in different settings using quantitative measures of attainment have been impossible because of the ways in which the progress of pupils with SEN has been recorded and judged.

- Under development in England and the US are systems which will bring pupils with SEN into an overall accountability and school improvement framework.

- P scales have been developed to support the structured progression of pupils working towards Level 1 of the National Curriculum.

- Effective pedagogies for inclusion are seen to rest not on curriculum prescription but on teachers' understandings of individual differences and on their skills in responding to those differences

- Differentiation is seen as the principal mechanism underpinning effective inclusion, but it appears that teachers vary greatly in their skills in this area.

- Differentiation is conceptualised as being located in teacher approaches and as involving the same processes as formative assessment, such as, those endorsed by the AifL initiative in Scotland.

- There are strong parallels between the US and the UK systems of educating children with SEN, but also some fascinating differences. Policies are based on education and disability legislation.

- Like England, the majority of children with SEN in the US are in mainstream schools, but some specialist provision in separate institutions is also available.

- It is mandatory for all children with SEN in the US to have IEPs. These are legally binding documents, and if dissatisfied with their substance or implementation, parents may bring a case to the federal appeal court.

- A high proportion of children in the US have IEPs (more than 11%). A significant proportion of education funding, drawn from federal, state and school district levels, is spent on the education of children with special educational needs.

- A categorical system is used in the US to draw boundaries around who qualifies for an IEP.

- Special education is highly developed in US universities and many teachers have specialist qualifications. This leads to more highly qualified professionals, but also promotes the idea that children with special educational needs require special pedagogies.

- Sweden has strong similarities with the English system, in terms of placing the majority of children with special educational needs in mainstream schools. It only collects data in relation to children in special settings, demonstrating a degree of antipathy towards social categorisation.

- In Sweden, funding is devolved to municipalities and thence to schools. This produces considerable local variation with regard to which pupils in mainstream settings attract additional funding, and some pressures towards special settings, where additional resourcing is guaranteed.

- Greece, like Sweden, places the majority of pupils with special educational needs in mainstream schools, although rigid curricula mean that little differentiation occurs. Funds are devolved to the local level, but provision for children with special educational needs is regarded as inadequate.

- Flanders is one of the few countries in Europe with a rigid two-track system, with virtually all resources for pupils with special educational needs allocated to the special sector. There are tentative moves towards more inclusive arrangements, partly driven by parental pressure.

SECTION 4: CURRICULUM AND PEDAGOGY FOR CHILDREN WITH ADDITIONAL SUPPORT NEEDS IN SCOTLAND

Introduction

This section will consider curricular provision in Scotland for pupils with additional support needs. National curricular arrangements will be discussed before considering the methods used in enabling pupils to pursue the aims of the curriculum. Pedagogies for five distinct types of additional support needs will be considered here but it does not follow that there are five correspondingly distinct pedagogies. Indeed, the focus of much debate in current literature is the extent to which all pupils should be considered as uniquely different in the way they are taught, as opposed to being defined by a type of impairment. This debate will be considered and strategies which have been seen to have generic value will be identified. Also considered in general terms will be other aspects of provision which relate to effective pedagogies. The final section will look at five types of additional support needs: autism, sensory impairments, severe and complex learning difficulties, specific learning difficulties and social, emotional and behavioural difficulties) and will consider issues related to the learning and teaching of pupils with those particular needs in the context of the classroom and the curriculum. As noted in Section 1, this section draws on a review of published literature as well as interviews with eleven specialists in particular areas.

Background

Common curricular framework

In Scotland, attempts to establish a suitable curriculum for pupils with special educational needs (SEN) have been marked by, on the one hand, a desire to ensure the entitlement of those pupils within a common curriculum framework whilst, on the other hand, ensuring appropriate and targeted support for individual pupils. Issues of commonality in the curriculum framework, and of breadth and balance in the curricular experience of pupils with SEN, were addressed by the introduction in the early 1990s of the 5 – 14 Curriculum with its accompanying 5 – 14 Support for Learning pack. This material offered teachers advice both generic and specific to particular kinds of SEN, including pupils with severe and complex learning difficulties, social, emotional and behavioural difficulties and sensory impairments. Five strategies for customizing the curriculum were endorsed: differentiation, adaptation, enhancement, enrichment and elaboration. These strategies aimed to enable teachers to plan a suitable curriculum for individual pupils whilst ensuring that pupils' learning was framed by the national curriculum guidelines. The curriculum planning mechanism was an individualized education programme (IEP). Under the new legislation, IEPs will continue to be used for children and young people with additional support needs (ASN), that is, for those who, for whatever reason, require short- or long-term additional support in order to help them make the most of their school education. The *Code of Practice* (SEED, 2005: 11) indicates that those who require additional support may include those who:

- have motor or sensory impairments
- are being bullied
- are particularly able or talented
- have experienced a bereavement
- are looked after
- have a learning difficulty
- are living with parents who are abusing substances
- are living with parents who have mental health problems
- have English as an additional language
- are not attending school regularly
- have emotional or social difficulties
- are on the child protection register
- are young carers

Inclusion in this list does not mean that additional support will be necessary, and it is recognised that there may be others requiring additional support who are not covered by this list. (SEED, 2005: 11)

In addition, small number of children and young people children will require a coordinated support plan when their additional support needs arise from complex or multiple factors which require a high degree of coordination of support from education authorities and other agencies. The co-ordinated support plan in a statutory document subject to regular monitoring and review (SEED, 2005: 47). All children with additional support needs will have a curriculum framed by the values, purposes and principles set out in A Curriculum for Excellence (http://www.scotland.gov.uk/library5/education/cerv-00.asp), a framework which seeks to provide for the first time for all children and young people between 3 and 18 years.

Individualised Educational Programmes

The Warnock Report (DES, 1978) had referred to 'educational programmes for individual children' (11.15: 209) and emphasised the importance of planning long- and short-term learning objectives for all children with special educational needs (SEN) in a range of curricular domains. More recently in Scotland, IEPs have become a mechanism for raising and monitoring standards, as well as a tool for ensuring the curriculum entitlement and progression of pupils with SEN. Following the framework set out in the paper Setting Standards – Raising Standards in Schools (SOED, 1998), it was decided to set targets for schools in relation to the 5 – 14 programme and SQA awards and in 1998 support packs were produced and circulated to all schools. It was intended to include children with SEN in the target-setting initiative and the paper Raising Standards: Setting Targets for Pupils with Special Educational Needs (SOEID, 1999) described how this was to be done. In November 1999, a support pack in relation to special educational needs was produced and circulated to all schools (Raising Standards – Setting Targets Support Pack: Special Educational Needs, SEED, 1999).

The support pack provided to schools clarified the purpose of target-setting as a means of improving planning, assisting with self-evaluation and focusing schools on key aspects of their provision (learning and teaching, programmes of study, organization and management, use of certification). Advice was given about which pupils should have IEPs with targets. It was expected that IEPs should be opened for all children in special schools and units and all children with Records of Needs in mainstream schools. In addition, children in mainstream schools who did not have a Record of Needs but who required 'significant, planned intervention', as set out in the Manual of Good Practice (SOEID, 1998) should have IEPs with targets. It was recommended that targets should be set in one or more of the following curricular areas: communication and language, numeracy, personal and social development and that all targets should be SMART – specific, measurable, achievable, relevant and timed. In a study of IEPs in Scotland (2001) Banks et al (2003) reported that there were a number of issues in the implementation of IEPs:

- there were difficulties in using IEPs to both support pupil progress and judge school effectiveness
- IEPs were very influential in determining the balance of the curriculum pupils received but SMART targets could limit the range and quality of curricular objectives set for pupils
- there was a lack of consistency in the processes for establishing, implementing and reviewing IEPs, and in the formats used
- in mainstream secondaries in particular, IEPs were not 'owned' by those responsible for delivering the curriculum
- wider and stronger participation in IEP processes was desirable from pupils, parents and other agencies supporting pupils' learning
- there were significant staff development implications in ensuring effective individualized planning of the curriculum

Since that study, IEPs have replaced the Record of Needs for numbers of pupils with additional support needs; their place in ensuring effective provision is encoded in the recent legislation but, in mainstream schools in particular they have not been fully integrated into general curriculum planning processes (Riddell et al, 2003). IEPs are a key mechanism in allowing the flexible and targeted planning of the curriculum within overall curriculum frameworks.

Curricular progression

The advent of the 5-14 curriculum in the early 1990s established a framework of, initially, five broad levels A – E through which pupils' progress could be charted and communicated throughout their primary schooling. Level F was subsequently added to counter perceptions that some pupils in S1 and S2 were marking time until they embarked on Standard Grade courses in S3. An elaborated curriculum was developed for pupils who were working up to level A but some commentators have queried the effectiveness of the elaborated curriculum in supporting the progress of pupils (McKay and McClarty, 1999; Howieson and Closs, 2006). However, the use of targets within IEPs can ensure and acknowledge pupil progression although, in some cases, progression within IEPs is constructed as narrow and linear. Sometimes, there are restrictions to the range of curricular areas represented but also in the kinds of learning outcomes stipulated. Banks et al (2003) pointed to a danger that only easily-measurable targets would be set.

IEPs link into national systems of assessment, as well as into national curriculum frameworks, for example, targets in secondary school IEPs could relate to the improvement of a piece of writing to be used for Standard Grade English coursework folio. The scope for using IEP targets to support lateral progression has been limited in secondary schools by the compartmentalised nature of the curriculum. Where a teacher or teachers have an overview of pupil learning encompassing different curricular areas, transfer of skills, knowledge and understandings will be more explicitly encouraged. It is worth noting that advice on the purposes of P scales from the Qualifications and Curriculum Authority (QCA) in England includes the view that these assessments should allow skills acquired and identified in one curricular area to be further nurtured elsewhere in the curriculum.

Standard Grades introduced in the mid-1980s offered assessment (certification) for all at the end of the period of compulsory schooling. Certification at three levels, Credit, General and Foundation, was intended to provide much wider opportunities, particularly for young people leaving school without formal qualifications. However, Standard Grade is still seen as too demanding for some pupils in special schools and at the margins of mainstream schools who gain few or no awards at Foundation level.

Higher Still, sub-titled *Opportunity for All* (Scottish Office, 1994) was an attempt to ensure a more appropriate and inclusive system of post-16 certification in Scotland. Intended for all pupils, certification was offered at three levels: Access, Intermediate and Higher, with modularization to ensure incremental progression through levels i.e. pupils should not be 'locked into' a particular band of curriculum or attainment. The aim was for a single, coherent framework which ensured parity of esteem for vocational and academic qualifications. There is some disagreement, however, as to the value of certification at Access level. Problems may also arise when a child with special educational needs is studying Higher Still at Access level within a class of pupils working towards Standard Grade at general/Foundation level. This is to do with the content of the courses, which does not overlap in some subject areas.

Assessment and certification
Special arrangements pertain to allow pupils with particular kinds of additional support needs (e.g. sensory impairments, specific learning difficulties) to access standard assessment procedures and to gain national certification. Within 5-14 frameworks, these arrangements are made at school level and are usually informal since assessment of progress through the levels of 5 – 14 is based on teachers' judgement of attainment. At Standard Grade and within Higher Still (HS) levels, access supports are provided by arrangement with the SQA. These arrangements are seen to function well, for example, the SQA was noted as leading provision in the UK for deaf pupils by allowing signed *responses* to exam questions.

Special pedagogies?

Although part of this review is organized using types of additional support needs, this is not intended to convey that discrete special pedagogies are required for each group. In fact, the consensus from UK research and other literature is the opposite: there are no distinctive pedagogies that are effective for all pupils within one type of disability (EADSNE, 2001; Norwich and Lewis, 2001; Lewis and Norwich, 2005). Brahm Norwich and Anne Lewis discuss the importance of specific pedagogies for children with a range of impairments.

Working within an English context, they set out to scrutinise policy assumptions about the validity of a broadly common curriculum as evidenced, for example, in the National Literacy Strategy. Their conclusion is that there are common pedagogic principles which are relevant to all pupils. Reaching a similar conclusion in a scoping study produced for the DfES, Davis and Florian (2004) comment:

> There is a great deal of literature in the special education field. However, the teaching approaches and strategies discussed in this literature were not sufficiently differentiated form those which are used to teach all children to justify the term SEN pedagogy even though they may have been developed in response to a special educational need. (Davis and Florian, 2004)

This position is somewhat qualified by the recognition that some pupils need more intense and focused teaching, adaptations greater than the 'normal' adaptations teachers would use in working with all children (Lewis and Norwich, 2001, Norwich, 2004). These are adaptations to common teaching approaches, sometimes called specialized adaptations or 'high density' teaching (Norwich and Lewis, 2001: 313). In addition, it is generally recognised that some deaf and blind children benefit from particular approaches to teaching and learning, using Braille or British Sign Language, and that children with autistic spectrum disorder may similarly benefit from distinctive teaching strategies. It should also be noted that thinking in the US context is rather different, where the edifice of special teacher education programmes is based on the premise that children with special educational needs require special approaches to teaching. Therefore findings within the UK literature have a strong cultural dimension, linked to the organisation of special educational needs provision.

Wang (1990) describes the core features of adaptive instruction as:

- instruction based upon the assessed capabilities of each learner;
- each learner able to progress at own pace;
- periodic evaluation of learner's progress by the teacher;
- learner acquires increasing responsibility for own learning;
- alternative learning activities available;
- learners have opportunities for choice/decision-making;
- learners assist one another (Wang, 1990 in Norwich and Lewis, 2001: 318)

This list has much in common with the features of good practice in learning and teaching described in *Count Us In: Achieving Inclusion in Scottish Schools* (SEED, 2005). With regard to inclusive pedagogies, there is some literature considering the impact of particular strategies for pupils with and without SEN in the same classroom. Vaughn, Gersten and Chard (2000) note that where classroom interventions demonstrated significant positive effects for pupils with learning difficulties, they have resulted in at least as high (and most often higher) effect sizes for all other students in the class, including average and high-achieving students.

Generic curricular strategies

In considering the literature on pedagogies for different groups of pupils, some strategies are widely endorsed for particular and different groups and for all pupils. This partly answers the question of Norwich and Lewis (2001) as to whether effective pedagogies are subject specific, or are effective across the curriculum. Swanson (2001) noted that common general principles for teaching pupils with learning disabilities exist and they apply with different students in different content areas and in different settings. Among the effective 'instructional components' derived from these principles is *explicit strategy instruction* which involves the pupil in metacognition i.e. gives strategies for learning but also fosters awareness of how those strategies function. According to Swanson (2004: 341), factors related to effective strategy instruction include the following:

- advanced organizers (providing pupils with a type of mental scaffolding on which to build a new understanding)
- organization (directing students to stop from time to time to assess their understanding)

- elaboration (thinking about the material to be learned in a way that connects the material to information or ideas already in the mind)
- generative learning (making sense of what they are learning by summarizing the information)
- general study strategies (underlining, note-taking, summarizing, having student generated questions, outlining and working in pairs to summarise sections of materials)
- thinking about and controlling one's thinking processes (metacognition)
- attributions (evaluating the effectiveness of a strategy).

Strategies which foster collaboration between pupils such as cooperative learning (McDonnell, 1998; Murphy et al, 2005) and peer tutoring (McDonnell, 1998) are viewed as effective in enhancing learning. Peer tutoring refers to the practice of two pupils working together with one pupil providing assistance, instruction and feedback to the other (Harrower and Dunlap, 2001). This approach is particularly helpful for pupils with disabilities when they adopt the role of tutor (Vaughn, Gersten and Chard, 2000; Wilson, 2004), and can be used for a variety of purposes in the classroom, for example, to help review previously learned skills, understandings, to provide direct teaching on new skills or concepts and to help pupils to complete daily activities. Peer tutoring can be used along with other teaching methods and it offers teachers a useful tool in addressing individual needs. Finally, peer tutoring is viewed as a valuable means of including pupils with SEN in the natural social networks in and out of the class (McDonnell, 1998).

Small interactive groups are noted as having positive effects for all pupils (Vaughn, Gersten and Chard, 2000; Swanson, 2001). Cooperative learning fosters such interaction, however, McMaster and Fuchs, (2002) note that:

> Merely placing students with disabilities into groups with their peers does not ensure that they will interact in socially appropriate and instructionally beneficial ways.

Davis and Florian (2004) organized their review of strategies in teaching pupils with SEN around the following four areas of need specified in the SEN Code of Practice (DfES, 2001) communication and interaction, cognition and learning, behavioural, emotional and social development and sensory/physical. They found that teaching approaches and overall strategies cut across these broad areas, as well as across different kinds of SEN. They found that multiple classroom approaches produced more powerful effects than single strategies. Citing Kershner (2003), they recommended, therefore, the adoption of a framework which organized strategies according to what they do rather than who they are for. This would mean grouping strategies around curricular aims or purposes. So, for example, strategies which contribute to raising attainment could be represented as:

- Directly raising attainment (e.g. using task analysis and target-setting with associated guidance, prompts and other supports to reach specified objectives and demonstrate success) and access strategies directly related to attainment (e.g. teaching relevant ICT skills to promote curricular access).
- Promoting active learning (e.g. modelling appropriate learning strategies, developing thinking skills, metacognition, reflection and creativity, etc.) and access strategies relating to active learning (e.g. promoting language development and observational skills, self-assessment and response partner systems; facilitating choice and risk-taking in learning, play, drama and simulations)
- Promoting participation and engagement (e.g. facilitating collaborative learning and peer tutoring, emphasizing the use or application of knowledge for 'real life' purposes; using mentoring schemes, etc) and access strategies for participation and engagement (e.g. enhancing self-esteem, emotional growth and motivation, developing social skills, teamwork and friendships)
- Responding to personalised learning styles and preferences (e.g. visual, auditory, kinaesthetic modes of learning; orientation to study, such as deep/surface approaches; multiple intelligences, etc.

Wider factors supporting classroom strategies

Classroom teamwork
An important feature in appropriate classroom provision for pupils with additional support needs is the additional support offered by specialist teachers, classroom assistants, auxiliaries, learning support teachers and so on (Winterman and Sapona, 2002) and collaborative working is endorsed in the new *Code of Practice in Scotland, Supporting Children's Learning* (www.ltsscotland.org.uk/inclusiveeducation/). One of the main issues emerging from the literature in relation to collaboration is the management of such support within the classroom (Dyson et al, 2002; Groom and Rose, 2003; Hunt and Goetz, 2004). Although such support is viewed as key to the inclusion of pupils with additional support needs, it has to be provided in ways that do not remove responsibility from the class teacher, nor should it inadvertently block interactions between peers (Wilson, 2003).

> For students to benefit from participating in inclusive education, services form 'outside' classroom staff must be delivered in ways that enhance educational as well as social opportunities (Wilson, 2003: 236)

There is some discussion in North American literature about the developing roles of 'paraprofessionals' in the classroom where roles are seen as being instructional, tied to direct support for families and largely unsupervised. Concerns are expressed in relation to a lack of expertise in working with pupils with particular needs, for example, sensory impairments. A second area highlighted in the literature is the provision of quality training for classroom assistants and others who contribute to the classroom team. In addition, teachers themselves are inadequately prepared to manage the classroom team.

With regard to classroom collaboration, a further clear issue in the literature is the need to provide time for those working together in the classroom to review and plan with each other. This clearly requires some initiative and goodwill and the part of those who are trying to collaborate, as well as those attempting to timetable such interactions.

Classroom as a social context
There is some evidence that strategies may be less important determinants of learning than aspects of teacher attitudes and interactions with pupils, for example, expectations. The social context of the classroom is signalled as influential on pupil learning; and the opportunities it offers for acceptance, interaction and friendship are cited by parents as one of the main positive outcomes of inclusive schooling (Hunt and Goetz, 2004)

Classroom in a social context
Beyond the organization of the curriculum, Davis and Florian (2004) stress the importance of the social and cultural contexts within which schools function and which influence the capacity of teachers and schools to provide well for a diverse range of pupils. They argue that acknowledgement of context is a particularly important consideration in understanding how to replicate successful initiatives in schools. Parental participation has not been addressed directly in this review which has focused on classroom practices, but the involvement of parents is highlighted as a vital factor in inclusive schooling (Hunt and Goetz, 2004) and the construction of their involvement is not as proxy consumers of education but 'as members of a wider community with shared interests and priorities' (Dyson et al, 2004: 280).

The next section will consider issues in the teaching of pupils with particular types of additional support needs.

Additional Support Needs

Autism
Jordan (2005:110) cites Wing (1996) describe autism as a 'triad of impairments' characterized by difficulties in:

- social and emotional understanding
- all aspects of communication
- flexibility in thinking and behaviour.

Jordan stresses that in considering the curriculum and suitable pedagogies, the triad should be understood in its totality; its components should not be separated out and thought of as 'attributes' of the pupil. The difficulties pupils experience are caused by the developmental disorder itself and also by the barriers to 'participation in the socialisation and enculturation process through which development normally takes place'. (Jordan, 2005:114)

In a comprehensive review of educational interventions for pupils with autism, Jordan, Jones and Murray (1998) point to a combination of 'common pedagogy' features such as parental participation and opportunities for social interaction and SEN specific features such as the need for routine, the use of visual cueing and the explicit teaching of specific generalisation strategies (Norwich, 2003: 326). Norwich (2003) comments that the inference here is that pupils with autism do need some pedagogical strategies which differ from other children but that it is not clear how specific to the autistic group such strategies might be. The extent to which specific strategies are required might depend upon the level of student functioning. Harrower and Dunlap (2001) note that autism is a highly heterogeneous type of SEN and that this factor means that delineated strategies have to be individually tailored to meet the needs of pupils. Further, some of the strategies used are also applicable to students with other kinds of additional support needs, for example, SEBD, and to students who are not classified as having additional support needs.

Jordan (2005) discusses the behaviours of pupils with autistic spectrum disorders and points to a number of factors requiring specific pedagogical approaches. For example, pupils with autism would need to be taught to respond to social signals, such as their name as an attention-alerting signal. Learning which would normally arise form early dyadic interactions would not have occurred and so pupils with autism would have to be taught about turn-taking, the timing of social interactions, the sharing of interest, the backgrounding and foregrounding of information and the ability to modulate levels of arousal (Jordan, 2005: 114). Meaningless stimulation is confusing for pupils with autism and so teaching for meaning can help. To do so effectively, teachers would have to have knowledge of autistic spectrum disorders. Otherwise there is a danger that teachers respond to the behaviour alone.

Fletcher-Campbell (2001) reports limited evidence of factors which assist in the classroom inclusion of pupils with autism. This may be because strategies reported elsewhere are not linked exclusively to autism, for example, self-management strategies. Harrower and Dunlap (2001) and Reid (1999) note that such strategies are ideal in enabling higher levels of classroom participation. Self-management strategies would include teaching the pupil to

- discriminate between appropriate and inappropriate behaviour;
- evaluate his/her own behaviour;
- monitor his or her behaviour over time; and
- reinforce his or her behaviour when pre-specified criteria are met.

Strategies which control antecedents are noted as particularly useful in working with pupils with autism because they are proactive. By altering routines or environments, they address challenging behaviour before it occurs. Harrower and Dunlap (2001) cite three such techniques: priming, prompt delivery and picture schedules. Priming means previewing information or activities that a pupil is likely to have difficulties with. For example, if a pupil generally has had difficulties in a circle when the teacher was reading a story, a productive strategy might be to read the story individually to him or her before s/he experiences the story in the presence of the entire class. Prompts, delivered consistently by the teacher or by a peer, and in addition to general class instructions and information, have been found to assist pupils with autism. Picture schedules are used to increase predictability or as an alternative to verbal or written instructions. Harrower and Dunlap (2001) note that transitions from one activity to another are a common feature of classrooms but that they can be problematic for pupils with autism. Picture schedules can serve as effective cues to changes in activities.

There is some discussion of different social stimuli in the classroom and their impact on behaviour and attention to task. Different stimuli, e.g. tone of voice, adult proximity to pupils, peer seating, etc. are used to influence and control pupil behaviour and attention. Wilczynski et al (2005) argue that more empirical research is needed to investigate further this aspect of

classroom practice and its potential in teaching pupils with autism, in particular. Solomons (2005) discusses the potential of sensory dimension in supporting the learning of pupils with autism and severe learning difficulties. Touch as a means of developing sociability and communication is well documented but smell can also be an important means of supporting learning. Fragrances can be used to reinforce learning experiences by assisting in long-term recall and forming part of multi-sensory approaches to learning. Touch is advocated as a vital means of communication for some children and an important vehicle for developing their understanding about the world (Solomons, 2005; Sanderson and Harrison, 1991).

The social difficulties of pupils with autism are seen to be the main barrier to their learning and so some emphasis is given to social skills instruction (Winterman and Sapona, 2002) and to strategies which increase opportunities to work with peers e.g. peer tutoring, discussed above as a generic strategy, is viewed as particularly helpful in teaching pupils with autism. Another generic strategy which fosters pupil collaboration in the classroom is cooperative learning. This, too, is viewed as being of great value both to pupils with range of additional support needs including autism, and with none, in improving academic success and social interaction (Harrower and Dunlap, 2001).

Sensory impairments

Visual impairments
The term visual impairment (VI) is used because only about 2% of pupils are actually blind. There are three broad types of VI, arising from a) a problem with the eye b) a problem with the optic nerve or c) a problem with the brain's processing of visual input. The last is termed cerebral VI and is increasing in prevalence. These different types of VI have implications for the type of support provided in classrooms.

Douglas and McLinden (2005:29) note that vision plays a key role in learning and development, linking different types of sensory information and integrating information received through other senses. For pupils with visual impairment (VI), therefore, there is a negative effect on both the quality and the quantity of information received. McCall (1999), cited in Douglas and McLinden (2005) indicates that children with VI on starting school may have had fewer opportunities to:

- explore the environment
- learn through incidental and unplanned experiences
- refine motor skills by observing and copying others

Davis and Hopwood (2002: 2) report that, in accessing the curriculum, pupils with a visual impairment face a considerable challenge. They have limited or no access to the curriculum via a visual medium and the extra time needed in using hearing and touch to learn means that pupils with VI are likely to become more fatigued than full-sighted pupils. Key support is provided by a visiting teacher who helps to provide an additional curriculum which enables pupils to access to the ordinary curriculum. This additional curriculum may include specialist teaching of Braille, mobility skills, tactile skills, keyboard skills, use of speech recognition software and life skills (Davis and Hopwood, 2002). The specialist teacher also acts in an advisory capacity in the classroom offering advice on the physical organization and environment and on the presentation of curricular materials. Davis and Hopwood (2002) note that the following three types of adjustments are required in teaching a pupil with visual impairment: first, the teacher must develop ways of working with the specialist teacher; second, the teacher needs to make alterations to the classroom lay-out to enable the pupil with VI to navigate independently and to locate equipment; and, thirdly, teaching materials usually need to be adapted. Davis and Hopwood (2002) identify key features which help to support the learning of pupils with VI in the classroom:

- the teacher has 'ownership' of the child
- the TA works in a number of ways, and with children other than the child who is visually impaired
- curriculum is delivered in a non-visual way in addition to a visual delivery
- frequent use of participatory teaching methods

- clearly adapted teaching materials (usually intended for use with the whole class
- child with VI positioned in the class so as to facilitate interaction with others

The development of suitable pedagogies in this area is especially reliant on specialist teachers to support pupils directly and to advise on classroom provision. Such expertise is in short supply and the problem is particularly acute in rural areas.

Deafness
Gregory (2005: 18) reports that pedagogies in deaf education differ according to whether approaches are based on English or on British Sign Language (BSL). English-based approaches stress the similarity between the education of deaf children and others whereas approaches based on BSL, although subscribing to the same curricular aims, utilize different classroom practices. Gregory (2005) points out that the two approaches also differ in their aims for the social dimension of the curriculum. English-based approaches emphasise participation and integration into the hearing world whilst BSL-based approaches aim to foster 'pupil self-esteem, the valuing of deafness and sign language and recognition of the unique and distinctive deaf culture' (Gregory, 2005: 18). There is a long-standing debate as to whether deaf children have an impairment or need to be recognised as a linguistic minority.

It was also reported in Gregory that 68% of deaf children are educated using the aural-oral approach whereby the child's hearing is exploited using hearing aids or a cochlear implant to develop listening skills and facility in the spoken language. A further group of deaf pupils is educated using signs from BSL together with English (Sign Supported English) whilst a small group (approximately 3%) are educated through a sign bilingual approach. Deaf pupils attain less well than their hearing peers, although many deaf children also have cognitive learning difficulties therefore direct comparisons are difficult. Where provision is English-based, the assumption is that the ordinary curriculum is appropriate but that there may be delayed progression. Supports to enable curricular access may include amplification, provision of a separate room and the use of a scribe. Watson et al (1999) document changes in teacher behaviour which can be helpful such as always facing the class when talking and making more use of visual supports and handouts (Gregory, 2005). Support varies from school to school and depends on local decisions on resourcing.

Deaf pupils educated using BSL-based approaches (a numerically small group) need different pedagogies to achieve the same goals:

> They require the use of sign in the classroom, some modified and specially developed materials and a recognition of different ways of teaching subjects using a visual spatial language, sign language, compared with a linear oral language, spoken language. In order to achieve a classroom where they can participate fully they require the presence of other deaf children and deaf adults, in recognition that the classroom is a social context for learning, not simply a teacher-pupil learning situation (Gregory, 2005: 22)

Much of the research looks at language differences in deaf children and not at classroom strategies, including the impact of additional classroom support.

Deafblindness
Deafblindness is rare. Miller and Hodges (2005) report its frequency as 1.8 per 10,000 of the UK population. Congential deafblindness is even rarer, often resulting from the mother's exposure to rubella in pregnancy. There are debates around its definition; Miller and Hodges (2005) cite Aitken et al (2000) in noting that the dropping of the hyphen in the term was intended to convey the combined effect of deafblindness. In the US, the term continues to be hyphenated.

With regard to the education of deafblind children, Miller and Hodges (2005) trace the influence of the learning theory of Lev Vygotsky, particularly through the emphasis on the development of mind in sociocultural contexts and in its stress upon 'action' in the work of Jan van Dijk.. As a result of sensory and social deprivation, the deafblind child lives in a world with very limited stimuli and, as a result, seeks compensation in self-stimulation: rocking, eye-

pressing and light stimulation and is unaware of a world outside of his or her body. The aims of Van Dijk's curricula approaches are summarized by MacFarland (1995) as

- the development of initial attachment and security
- the development of near and distance senses in relation to the world
- the development of the ability to structure his/her world
- the development of natural communication systems.

The strategy first capitalizes on the pupil's reflex response to external stimuli (movement, vibration, etc.) to move him or her away from self-stimulatory behaviour and towards awareness of other people. Subsequent approaches are based on co-active movement where the teacher first follows and then joins in the movement of the pupil. The intention is to encourage turn-taking and the establishment of routines and expectancies which can then be manipulated to encourage reaction in the pupil and engagement with the teacher, for example, when an expected item is missing from the table. Other aspects of van Dijk's method include the use of object referents to foster language acquisition through holistic approach to communication and the use of signifiers to help the pupil develop a vocabulary of referents (Miller and Hodges, 2005).

Understanding of sensory function in learning and the impact of its loss is held to be a vital underpinning of appropriate pedagogies and one which is not generally found amongst teachers, nor in the prescriptive forms of the National Curriculum in England. Miller and Hodges (2005) argue for more diverse and child-centred constructions of progression.

Severe and complex learning difficulties
The literature presents readiness for learning as a strong theme in working with pupils with severe and complex learning difficulties (Norwich, 2003). Pupils with these kinds of difficulties may spend longer in positions and states which are not conducive to learning. Ware (1999) emphasizes the need for checking and ensuring preparedness to learn. Physical or sensory 'readiness' is a feature rarely considered for other pupils, although teachers would generally prime pupils as tasks and activities are approached.

Unaddressed needs for this group of pupils are problems with medium and short term memory, ordering and sequencing. Essentially, whereas the basic cognitive skills required for learning are implicit and natural to most learners, children with severe and complex learning difficulties require explicit support in this area. Norwich (2003) reports that recent developments in constructivist learning theory indicate that pupil-pupil interaction is important in fostering cognitive gains. Some pupils have very limited communication with other pupils in the classroom because of the nature of their difficulties. Explicit interventions are thus needed to ensure pupils with severe and complex difficulties do not miss 'a multitude of serendipitous and beneficial interactions with other pupils' (Norwich, 2003:326).

Computers are important means of curricular access for this group. An interviewee reported that schools provide computers on an ad hoc basis so access is patchy and there is little inter-school collaboration. However, schools have considerable control over their use, allowing adjustments to be made for particular learners, for example, alterations may be made to monitors and sound and particular software may be installed. In 2000, the National Grid for Learning was established. While this has ensured more even provision across the country, access to the network is restricted to the providers, often private companies. This may have a negative effect on teachers, who are frustrated at a lack of control and responsiveness to difficulties, and as a result are turning away from computer use in classrooms.

In mainstream schools, the additional technologies or materials for this group are ICT 'Clicker Plus' literacy and numeracy software and tailored reading schemes. In special school settings PECS (picture exchange communication system) is a method often used for pupils with severe and complex learning needs, which originated as a system for autistic pupils. The danger with this system is that it may be used as a token reward system rather than as a genuine pedagogical vehicle. In addition, access to books can be facilitated by digitising them. However, copyright restrictions may act as an impediment.

The development of social competence is a prominent curricular aim and Fisher and Meyer (2004) report that students with severe learning difficulties in inclusive settings made significant gains in initiating contacts and in coping with negative situations. Wolery and Schuster (2004) emphasise the importance of the 'ecological structuring' of the classroom environment, focusing on the use of space, materials and resources and the number, proximity and characteristics of peers, as well as the responsiveness of adults to student behaviour. Wilczynski et al (2005) considered the role of adult proximity as a social stimulus influencing on-task behaviour. It is argued that this aspect of classroom practice has been under-researched.

Kellett (2003, 2005) recommends the more widespread adoption of Intensive Interaction teaching approaches to developing sociability and communication skills in pupils with severe learning difficulties. The approach was adopted in the 1980s as an alternative to the highly behaviourist approaches common in this area of provision. Behaviourist methods were seen as 'unhelpful to the development of spontaneous purposeful language, producing instead only isolated pockets of communication associated with some non-related sub-skill' (Kellett, 2003: 1). Wolery and Schuster (2004) discuss peer mediated strategies in classrooms and response-prompting techniques as a means of facilitating interactions between pupils with and without disabilities.

Social, emotional and behavioural difficulties

EADSNE (2001) reported that almost all countries saw social, emotional and behavioural difficulties as being the biggest challenge to inclusive education (EADSNE, 2001: 15). Similarly, Didaskalou and Millward (2001: 290) point to concern throughout western education systems about an increase in problem behaviour. They notes the production of a raft of English policy and legislation (DfEE 1996) and guidance (1994a, 1994b, 1994c, 1997a, 1997b,1999) but report that there is no conclusive evidence that the problem has been successfully addressed. A number of other commentators (Daniels et al, 1999; Poulou and Norwich, 2000; Croll and Moses, 2003; Nutbrown and Clough, 2004) refer to teachers' views that pupils with social, emotional and behavioural difficulties present the strongest challenge to inclusion.

Teachers' values (tolerance, compassion), knowledge (of the condition or syndrome) and understandings (of the impact of drugs use within a child's family) appear to make a significant difference in providing appropriate classroom support. Equally important are teachers' skills in managing classrooms and in selecting and implementing appropriate strategies. In addition, appropriate teaching and classroom management depends upon wider factors in the school. The importance of ethos and a network of positive relationships has been well documented (Munn et al, 2000, Lloyd, 2005), and consistency and fairness in the application of rules within and outwith the classroom are also seen as essential, as are systems and structures which support teachers and pupils in the classroom.

UK literature on pedagogical strategies for this group note a number of effective approaches including 'buddy' schemes, friendship skills, anger management programmes, emotional literacy activities, assertive discipline, nurture groups and circle time (Fletcher-Campbell, in EADSNE 2001: 108). Assertive discipline (Canter and Canter, 1986) was imported from the US and is used in Scottish secondary schools. It offers a system for the classroom management of the behaviour of all pupils which rests on clear rules, positive feedback and a hierarchy of sanctions for rule-breaking. The clarity and consistency of rules and responses to good and bad behaviour is seen to be beneficial to pupils with behaviour difficulties. Nurture groups (Bennathan, 1997) are also used in Scotland to allow small groups of pupils with social, emotional and behavioural difficulties (SEBD) to follow the ordinary curriculum but at a slower pace and in circumstances which prioritise the personal and social development needs of pupils. Circle Time is well-established in primary schools in Scotland. It operates through regular slots in the daily/weekly routine and also as a flexible response to particular difficulties in pupil relationships, such as bullying or fights in the playground. Fletcher-Campbell (ibid.) reports that, though the approach is highly valued by teachers, it has not been subject to formal comprehensive evaluation. Restorative practices are gaining ground as a method for dealing with particular incidents where harm has been done to a member of the school

community and as a means for schools to develop a more positive ethos. This initiative is being piloted and formally evaluated in Scotland.

A thinking skills approach has been used in Scottish schools, particularly to support pupils with SEBD (Head and O'Neill, 1999). Baumfield and Devlin (2005) note that growing empirical evidence indicates that the value of a thinking skills approach is that it offers:

- pedagogy emphasizing learner engagement – in particular beliefs and feelings that help to determine the motivation to learn
- metacognitive knowledge (knowledge of one's cognitive functioning including knowledge gained through reflection)
- the strategic management of thinking and learning through self-regulation (involving planning, conscious direction, monitoring and evaluation).

A number of the factors in effective learning and teaching cited previously seem to be strongly associated with a thinking skills approach, for example, cooperative learning, choice and decision-making, learner autonomy and teachers' use of open questioning.

Classroom teamwork is seen as an important strategy in ensuring effective provision for pupils with SEBD in the primary school (Groom and Rose, 2003: 6). Classroom assistants are routinely involved in a wide range of support strategies, including assessment of individual pupils (the observation and recording of pupil behaviour to help in the identification of suitable targets and interventions); direct support for the pupil in achieving targets; involvement in generic classroom management such as maintaining classroom rules and keeping pupils on task; and developing aspects of the Personal, Social and Health education curriculum

Fletcher-Campbell (EADSNE, 2001) argues that, whilst the kind of approaches mentioned above are helpful in classroom management and in creating the conditions for pursuing the curriculum, they are not sufficiently targeted at pupils who have severe SEBD, for example, the needs of pupils with significant mental health problems may be better addressed through multi-agency provision in special settings. For disaffected and disengaged pupils, particularly towards the end of the compulsory schooling period, the focus has shifted away from helping pupils access the standard curriculum towards the development of alternative curricula. For example, ASDAN, an alternative curriculum which emphasises outdoor education and the fostering of initiative, self-reliance and teamwork, has been increasingly used in Scotland. Fletcher-Cambell (2001) argues that these kinds of innovations may reduce the number of young people becoming alienated from education. There is an acceptance that curriculum flexibility is needed; the balance of the curriculum might usefully be tilted towards personal and social development for some pupils at some points in their school careers. However, there is a view that alternative curricula for pupils with SEBD could represent a regression to a curriculum which lacked breadth, depth and challenge. To some extent, this has been addressed by building greater choice into the curriculum, where pupils choose which classes to attend and are presented for mainstream qualifications. The Curriculum for Excellence is intended to provide further opportunities for the development of alternative curricula in the future.

For pupils with ADHD, DuPaul and Eckert (2003:267) report that the bulk of studies have examined stimulant medication effects, whilst relatively few over a twenty-four year period have considered the efficacy of school interventions. From the limited evidence available, they conclude that school-based interventions are helpful in reducing ADHD behaviours and, to a lesser extent, enhancing academic performance.

Specific learning difficulties (dyslexia)
Commentators (Norwich and Lewis 2001; Knight and Hynd, 2002; Reid, 2003) report continuing debate about the nature and definition of specific learning difficulties (SpLDs). Also contentious has been the extent to which SpLDs may be distinguished from low attainment and general learning difficulties and therefore demanding of different teaching and learning methods than would pertain in ordinary approaches to literacy development. The British Psychological Association defined dyslexia as being 'evident when accurate and fluent word reading and/or spelling develops very incompletely or with great difficulty' (BPS, 1999). This

definition is extremely broad and appears to cover most mild to moderate learning difficulties, thus countering the definition preferred by bodies such as the British Dyslexia Association, which insist that the condition is essentially different from other learning difficulties and is physiological or neurological in aetiology.

These debates may account for the fact that much more work has been done on explaining and defining SpLDs than on evaluating the effectiveness of different interventions. Reid (2003: 140) advocates that the 'causal modelling framework' developed by Morton and Frith (1995) and Frith (2002) is useful because its three levels of causality – behavioural, cognitive and biological – allow clarity in understanding dyslexia and greater flexibility in determining suitable approaches..

Norwich and Lewis (2001) describe a cooperative integrated reading and comprehension programme (CIRC), a large-scale experimental study in the US, where classroom-based, mixed-ability and cooperative groups were used, along with individual learner accountability, to successfully develop vocabulary, comprehension, language expression, metacognitive awareness and positive attitudes to reading and writing.

Special educators have been particularly interested in interventions which focus on underlying processing difficulties. These process intervention approaches have been popular in the US but their effectiveness has been queried (Norwich and Lewis, 2001). More popular in the UK have been phonological approaches which adopt a step-by-step (bottom-up) approach to reading. Within this overall approach, a wide range of programmes and packs have been developed and used with pupils diagnosed as dyslexic. Common elements in these programmes are:

- multisensory, indicating that the programme involves visual, auditory, kinaesthetic and tactile elements
- sequential, involving a step-by-step approach
- cumulative, indicating a progression with the previous step forming a basis for the next step
- over-learning, a series of repetitive activities to help the learner to achieve mastery (Reid, 2003: 141).

Reid (2003) subscribes to the view that pupils with dyslexia or specific learning difficulties can be taught according to common pedagogic principles, so long as the teaching is informed by a specific knowledge base. In the case of dyslexia, that knowledge would encompass the factors associated with the acquisition of literacy; the particular difficulties with literacy that can be noted in dyslexic children; the principles of multi-sensory teaching; the importance of selecting clear and coherent teaching aims; an awareness of the important role played by pre-reading strategies and proof-reading, as a post-writing strategy (Walker, 2000). Awareness of these factors would enable teachers to work effectively with pupils with dyslexia and would facilitate decisions about the need for 'high density' teaching, either within or outwith the classroom. Reid (2003) summarises the pedagogies most appropriate for pupils with dyslexia as being multi-sensory, structured, cumulative and sequential. Many programmes have a phonic emphasis, although some pupils with dyslexia may have pronounced visual difficulties. Programmes, however, should not be overly prescriptive, since pupils with dyslexia have individual needs and so adaptations to any given programme will be required. The ability to plan and act on the basis of evidence of individual learning requires skilful teaching and the availability of appropriate resources (Pumphrey and Reason, 1992).

Many of the general approaches used to develop literacy are themselves beneficial for pupils with dyslexia. Reid (2003) believes peer tutoring, paired reading and other whole-school initiatives to support literacy development are helpful for all children, not just those who are reading-delayed children. Such approaches are linked to some extent with methods which focus on meaning. This combination is viewed as especially important for pupils with reading difficulties since an emphasis on developing skills such as phonics and phonological awareness can sometimes minimize experience of meaningful reading and writing (Connor, 1994). There is a strong message from the research that

phonological approaches should be combined with 'whole language approaches'. Indeed, Reid (2003) makes the point that poor readers are more dependent on context than able readers. There is therefore some consensus that approaches for pupils with dyslexia have much in common with the approaches used for all pupils, although specialist teaching may be required (Connor, 1994; Vellutino, 1987). Reid (2003: 141) argues that the key factors for children with dyslexia are how materials are presented and how progress is assessed, implying that pedagogy for this group is an adaptation of class teaching. Reid concludes that focusing on 'barriers to learning' may be a more useful approach for pupils with dyslexia and one which leaves open the opportunity for provision to be planned and provided within general approaches to literacy.

Summary

- In Scotland, there is an emphasis on a common curricular framework delivered to all pupils.

- Individualised Educational Programmes are generally regarded as the vehicle for specifying individual targets for pupils with additional support needs and for monitoring progress.

- Research has highlighted a number of issues to do with a possible narrowing of the curriculum, their ownership by subject teachers in secondary schools and the involvement of parents, pupils and external agencies.

- Standard Grade is regarded as too difficult for some pupils with special educational needs, particularly those with significant difficulties with literacy and numeracy. Some pupils with special educational needs are following Access courses which form part of the Higher Still programme. However, some mainstream teachers find it difficult to teach pupils studying Standard Grade and Access courses in the same class because of differences in course content.

- There are ongoing debates about the need for special pedagogies, and recent UK reviews have suggested that most children with special educational needs do not require qualitatively different teaching approaches. However, there is an abundant academic and practitioner literature setting out the specific approaches which work for children with particular impairments, and voluntary organisations often lobby for specialised teaching methods.

- Children with autistic spectrum disorder appear to benefit from an ordered classroom environment where extraneous stimuli are limited and controlled and there is an emphasis on the development of social skills.

- The development of children with visual impairment before they reach school may have been limited, therefore teachers need to create an environment in which physical, intellectual and social capacities may be extended. For some children, specialised software may be necessary and others may benefit from learning Braille. A specialist qualification is required for teachers of children with visual impairment.

- There are fierce debates about the best means of educating deaf children, with some people maintaining the British Sign Language should be used much more extensively, whilst others support 'oralist' approaches. As more children have earlier cochlear implants, the latter may become more popular. It is argued that many deaf children do not make adequate progress in school due to lack of knowledge of appropriate teaching methods, particularly in mainstream settings.

- Very particular approaches are need in the education of deafblind children, focusing on the development of attachment and security and the fostering of access to the external world through touch.

- For children with severe and complex learning difficulties, behaviourist approaches have tended to be replaced by Intensive Interaction teaching methods, which emphasise the importance of social and communication skills. Specialist computer software is also extensively used, although some argue that there is a need for greater clarity about the learning objectives to be achieved.

- Teachers in mainstream schools find the education of children with social emotional and behavioural difficulties extremely challenging. Approaches which modify the classroom environment to provide intensive support, including the use of classroom assistants, have been developed. At secondary level, there is an increasing emphasis on the development of a single curriculum framework allowing different routes for progression.

SECTION 5: SUMMARY AND CONCLUSION

International comparisons of special educational needs provision

Despite the acknowledged difficulties in gathering data which are sufficiently robust to allow international comparisons, reviews undertaken by OECD and EADSNE reveal fascinating patterns in developments in the field of special educational needs. There appears to be an international move away from medicalised categories and towards inclusion. However, the difficulties of managing inclusion effectively are acknowledged, with primary schools having greater success than secondary schools. Most countries appear to favour eclectic forms of provision, with parallel developments in inclusive education, special classes or units in mainstream schools and special schools. World-wide, boys appear to have more difficulties in coping with mainstream education than girls, and across the world attract a greater proportion of additional resources. There are intriguing differences between countries, with very different local practices in relation to inclusion and decisions on additional resourcing. In relation to a category such as blindness, for example, some countries prefer mainstream over special placements and vice versa. Similarly, a blind child might or might not attract additional resourcing depending on where they are being educated. Most children experiencing social disadvantage, often associated with emotional and behavioural difficulties, are almost always educated in mainstream schools.

Funding regimes are critical in influencing the shape of provision for children with special educational needs, incentivising placement in either special or mainstream settings. The use of categories for accessing additional funds has both upsides and downsides. On the one hand, strict qualification criteria may equalise provision and produce a degree of fairness, although there will always be borderline cases who will be deprived of funding. On the other hand, the application of qualification criteria is likely to lead to disputes over definitions, boundaries and forms of assessment, with litigation absorbing funds which might be better used for educational purposes. By the same token, delegating funds to local level may also be problematic, since it is likely to lead to unequal use of funds in different areas and, because of audit difficulties, may be used for purposes other than support for children with special needs. Delegating funds to local level may be intended to support inclusion, but may have the opposite effect in practise, making special schools more attractive because of guaranteed levels of funding.

Comparisons of case study countries

The five case study countries exemplify different approaches to special needs provision. Using the EADSNE typology, whilst the US, England and Sweden run multi-track systems, Greece is much closer to a one-track system, with very little investment in its special sector, whilst Flanders features many characteristics of a two-track system, with strong insulation between special and mainstream schools, including separate curricula. The US clearly has the strongest rights-based provision, with strict qualification criteria for additional provision. Whilst children with IEPs in the US benefit from relatively generous additional funding, until recently many were disadvantaged by being excluded from participation in state prescribed curricula and assessment systems. The US worries that it identifies disproportionately high numbers of African American students, particularly boys, as having special educational needs. It is therefore evident that the additional protection of the IEP in the US might have some features of the gilded cage.

There are strong parallels between the US and the UK systems of educating children with SEN, but also some fascinating differences. In both countries, a high proportion of children are identified as having special educational needs, the majority of whom are in mainstream schools. In both countries, some specialist provision in separate institutions is also available. It is mandatory for all children with SEN in the US to have IEPs. These are legally binding documents, and if dissatisfied with their substance or implementation, parents may bring a case to the federal appeal court. A significant proportion of education funding, drawn from federal, state and school district levels, is spent on the education of children with special educational needs. A categorical system is used in the US to draw boundaries around which children qualify for an IEP, and this varies from one state to another. In England, there have

also been disagreements about which children should receive a Statement of Needs, and there are also variations by local authority. In England, the Government is trying to encourage less reliance on the Statement of Needs, and many local authorities are making much less use of them. In the US, there is no parallel move away from the use of IEPs.

The extent to which children with special educational needs should be treated differently from other children within the education system is debated in both the US and England. For example, there are moves within the US to include children with special educational needs in state specified curricula and assessment regimes, and in England there has always been some degree of uncertainty about which children should have the national curriculum and assessment 'disapplied'. There are also differences between the US and England with regard to the need for specialists in curriculum and pedagogy. Compared with the US, which has a very highly developed system of training for special educators, the system in England and in many other European countries is far more ad hoc, with only teachers of visual and hearing impairment routinely requiring special qualifications. The US system produces highly qualified professionals, but also promotes the idea that children with special educational needs require special pedagogies.

In England, P scales have been developed to support the structured progression of pupils working towards Level 1 of the National Curriculum. The Qualifications and curriculum Authority in England also envisages that P scales will be helpful in supporting lateral progression whereby understandings, skills or knowledge acquired and specified in one context might be transferred by the pupil and further nurtured elsewhere in the curriculum. Much is hoped for from P scales by way of enabling collection of school data for accountability and school improvement purposes. However, the use of P scales as a curriculum planning tool for teachers is a more established purpose and has been judged to be helpful for teachers. There is some evidence that the value of P scales increases when teachers adapt and further refine them, although some difficulties remain in their practical application.

In terms of future trends, it is evident that both England and Sweden are experiencing something of a backlash against inclusion. In both countries, the trend is to delegate funding to schools, thus making the connection between additional funding and the needs of individual pupils less clear-cut. If parents believe that children will only receive additional resourcing in special settings, then they may regard such placements as preferable to mainstream schools, where they may have to struggle for additional resources. In all countries, it is evident that changes in the broader education system impacts on provision for children with special education needs. For example, in the US, England and Sweden, there are moves to include children with special educational needs in measures of school performance, but at the same time mainstream schools worry that including these children in league tables will have a negative impact on their performance, thus dampening enthusiasm for inclusion.

Curriculum and pedagogy for children with additional support needs in Scotland

Individualised Educational Programmes are generally regarded as the vehicle for specifying individual targets for pupils with additional support needs and for monitoring progress. Unlike the US, IEPs in Scotland do not specify the additional resources which will be delivered and are not associated with particular routes of legal redress. Research has highlighted a number of issues in their implementation, including a possible narrowing of the curriculum, a lack of ownership by subject teachers in secondary schools and low levels of involvement by parents, pupils and external agencies.

A number of tensions emerge in relation to the curriculum and pedagogy for children with special educational needs in Scotland. First, there is a possibility of conflict between ensuring equal access to a common curriculum and the development of alternative curricula. Since the early 1980s, there has been an emphasis on the entitlement of children with special educational needs to access the mainstream curriculum, and yet teachers appear to have difficulty in making the curriculum accessible through effective differentiation. There also appears to be some difficulty in finding the right course for some children with special

educational needs, with suggestions that there is a lack of smooth articulation between Standard Grade and Higher Still. There is a growing demand at secondary level for alternative curricula to stem the growth of disaffection, particularly for children with social emotional and behavioural difficulties. Such alternative programmes of study might emphasise personal and social development and include vocational and experiential elements. The Curriculum for Excellence appears to offer possibilities for the further development of flexible, rather than alternative, curricular programmes within the overall curricular framework.

A further tension concerns the extent to which children with special educational needs require specialist teaching methods related to the nature of their impairment. One school of thought maintains that most children can be taught effectively through the development of generic approaches to effective teaching, which will benefit all learners. Reflecting this view, special education departments in universities, which used to exist in colleges of education, have been merged with larger departments of educational studies. By way of contrast, the US system of teacher education is premised on the importance of separate and distinctive teaching methods for children with particular types of impairment, unlike the approaches to teacher education in the UK and many other European countries, which emphasise the similarity of, rather than the difference between, the learning needs of disabled children and others. The review of literature on specialist pedagogies presented above suggests that many still argue for distinctive approaches for children with particular types of impairment, and discrete rather than generic approaches are often sought by voluntary organisations campaigning for particular groups.

Conclusion: tensions within special needs education

This review has identified a number of tensions within special needs education which are played out in different ways in diverse international contexts. These are inter-connected, and are briefly summarised below.

Inclusion versus special provision
Countries vary greatly in their preference for inclusive or special systems of education, with most countries using a multi-track approach. Flanders is an example of a system with a rigid division between mainstream and special systems, notwithstanding new pressures from parents and the EU for a greater degree of inclusion. Greece, at the other extreme, has a high level of inclusion but a legacy of under-investment in special needs education. Sweden, England and the US all have a commitment to inclusion, but retain a significant special sector. In Sweden and England, questions are being asked about whether inclusion has gone 'too far', placing a strain on mainstream schools which are experiencing pressures of performativity. However, it is interesting that teachers generally do not appear to be unduly exercised by the presence of children with physical or sensory impairments, but rather by that of children with behavioural difficulties.

Geography clearly has an impact on countries' legacy of special schools. Whereas these could be run relatively efficiently in urban areas with high population density, they were never an attractive option in rural areas because of transport costs and logistics. Internationally, few developed countries have major special school building programmes. However, special units attached to mainstream are becoming increasingly popular, and in terms of official statistics, are blurring the boundary between mainstream and special sectors, although children in such placements may spend little time in mainstream settings.

Categorisation versus anti-labelling approaches
There are fascinating differences between countries in their approach to the categorisation of children with special educational needs. Whereas Sweden and England generally adopt an anti-labelling approach, Greece, Flanders and the US make extensive use of categories, but for different reasons. Greece still adheres to a psycho-medical tradition, even though education for children so identified is not well funded. Flanders categorises children at all levels of the education system, directing children along different educational routes on the basis of measurements of aptitude and ability. The US uses categorisation as the basis for

making administrative decisions about which pupils should attract additional, and often quite generous resourcing.

Categorisation is often strongly associated with administrative systems linked to the allocation of resources. In the US, the IEP summarises the nature of the pupil's special educational needs and the resources which will be dedicated to meeting these needs. Like the English Statement but unlike the English IEP, it is a legally binding document with clear routes of legal redress if there is a failure to provide the support specified. In England in the early 1980s, a system of statementing was put in place with the aim of replicating at least part of the US IEP function. Over the years, case law has established that Statements must be specific about resources to be provided. The DfES has signalled its desire to downplay the importance of Statements, encouraging schools to make provision available to pupils with SEN drawing on the funds delegated to them by the local authority. Whereas in Scotland Records of Need have been abolished, in England there are no similar plans with regard to Statements of Need at the moment, partly because this might provoke a very strong counter-reaction from voluntary associations and parents. Whereas Flanders conducts rigorous assessments of children placed in special settings, it does not have an official document detailing provision for children with special educational needs in mainstream schools. This is also the case for Sweden, where IEPs, as in England, are simply used to note educational needs, plans and achievements. In Greece, there is no official means of recording the needs of children with SEN in mainstream schools, and use of IEPs has not yet developed.

Individually targeted versus systemic funding

The effective deployment of resources to children with special needs appears to exercise many policy-makers, as does the decision on the amount of additional resources to be spent on additional support. As noted above, funding regimes are intimately linked to categorisation systems. In the US, borderlines and boundaries between types of difficulty attracting additional resources and funding are strongly disputed. In England, the DfES restricted access to Statements of Need for a much smaller group of children (about 3%), but has also signalled its unhappiness that this group attracts additional funding, and is thus seeking to downplay the link between having a Statement and receiving additional funding. In Sweden and England, funds delegated to schools are intended to reflect audited special educational needs, so that schools with a greater number of children with SEN should receive proportionately more money from the local authority. However, once the funds are in the school, there is a considerable degree of local autonomy in deciding how the money should be spent, and it becomes very difficult to be absolutely sure that the additional resources have been targeted at children with identified additional needs. In Flanders and Greece, additional funds do not appear to be routinely available to children with SEN in mainstream schools. In Flanders, this is because the SEN budget is locked into resource-intensive special school provision, and in Greece education funds are tightly stretched and children with SEN are not seen as a top priority.

It is evident that many countries struggle with the tension between ensuring that children with SEN are more generously supported than others without such difficulties, whilst recognising that additional funding provides a perverse incentive to crowd more and more children into the category. This is particularly likely to be the case when funds may be drawn from state or local authority coffers, rather than those of the school. The danger, of course, of not providing additional funds is that children with SEN swiftly become unattractive customers in schools driven by the pressures of performativity. Furthermore, allocating additional funds to schools on the basis of audited need creates problems in tracking the use of such funds once they are mixed into the general school budget.

There appears to be an association between level of funding for special educational needs and the proportion of children identified as requiring additional resourcing. The US, the most generous funder, identifies the highest proportion of children as having special educational needs, whilst Greece, the least generous, identifies the lowest proportion of children.

Inclusive versus special pedagogies and curricula

There are major disagreements as to whether children with special educational needs require essentially the same or essentially different curriculum and pedagogy as other children. There is a paradox here: whereas recent major reviews reject the idea of essentially different provision (although they do recognise the need for adaptations), the practitioner literature is replete with examples of specialist curricula and pedagogies which are seen as beneficial for particular groups of children.

All commentators recognise the need for significant differentiation of the curriculum, and it is here that mainstream teachers appear to have major difficulties. The EADSNE report states that:

> Handling or dealing with differences or diversity in the classroom forms one of the biggest challenges within European classrooms (EADSNE, 2001:116)

Elsewhere (EADSNE, 2003a), it is reported that secondary education is a much bigger challenge than primary education because of increasing subject specialisation and different forms of school organisation. Specific problem areas are insufficient teacher education and less positive teacher attitudes. Countries providing SEN facilities within mainstream stress that the curriculum framework should cover all pupils (EADSNE, 2003a: 12) and that this should be done through the drawing up of individualised education programmes for specific children. This mechanism is viewed as key to curricular inclusion but the academic literature records a number of problems in its implementation (Banks et al, 2001), often because mainstream teachers do not see it as their job to assess pupils' learning needs and produce differentiated teaching materials. The assumption is often that the child with special educational needs should fit in with the rest of the class, rather than teaching and assessment practices accommodating to their needs.

On the basis of accounts from 15 European countries and a review of the US literature on school inclusion, EADSNE (2001) notes that there are five areas of classroom practice helpful to the inclusion of pupils with special educational needs. These are the following: co-operative teaching, co-operative learning, individualised planning, collaborative problem solving and differentiation. Until these strategies are better taught in initial teacher education and become part of the culture of mainstream schools, the inclusion of pupils with special educational needs is unlikely to be highly effective.

Normative versus individualised measurement of progress

A range of practices were identified, with some groups of pupils in some countries excluded from national systems of assessment and certification. Elsewhere, as in Scotland, there has been adherence to the principle of including all pupils in the national systems but difficulty in implementing approaches which combine a formative assessment function with the summative and comparative outcomes needed for school improvement and accountability purposes. The use of individual target-setting within IEPs has been used to serve both purposes. For the first formative purpose, there is evidence that this strategy has helped in clarifying successive 'next steps' in learning for pupils, parents and teachers. However, the second summative purpose of target-setting has been more problematic. Target-setting for this purpose conflicted with formative and learner-orientated approaches to progress and also failed to provide attainment data which enabled comparisons of pupil progress in similar and different educational settings. In England, P scales have been developed to assist in this function and will be utilised in this way for the first time in 2006. Whatever, the result in terms of providing hard data to enable comparisons, the P scales have been noted as providing useful supports for teachers in mapping out progress for individual pupils.

In the literature, effective pedagogies for inclusion are seen to rest not on curriculum prescription but on teachers' understandings of individual differences and on their skills in responding to those differences. This is differentiation in the broadest sense whereby it is located in the range of professional skills used by teachers in the classroom, and not simply in the apparatus of the curriculum. However, teacher skills in differentiation vary considerably.

In Scotland, pupil progress has been supported by individualised planning and the use of target-setting. Some teachers have had problems in breaking down the curriculum into sequential segments to be articulated for pupils, parents and teachers as long- and short-term

targets. These difficulties would account for the use of P scales in some schools and units in Scotland. The literature conveys that inclusive classrooms rely upon skilled and adaptive teachers mediating the curriculum for different learners. However, it would seem that some teachers lack the confidence or the skills to work in these ways and like the support of detailed curriculum specification.

Practices in careful planning and target-setting parallel mainstream developments occurring through the Assessment is for Learning (AifL) initiative which, amongst other things, emphasises the need for clearly specified, communicated and progressive learning outcomes. Thus, existing understandings of how to support the progression of pupils with SEN can be located in a national mainstream initiative - longstanding good practice in SEN accords with the range of assessment strategies now current for all pupils.

In all countries considered, there was a trend towards the development of more inclusive approaches to the education of pupils with SEN. However, there was no clear view emerging from the literature as to whether education in mainstream or special settings provided more positive outcomes for pupils. The lack of good evidence here is attributable to the difficulties in gathering comparable data about the outcomes of schooling for pupils with SEN.

Special versus generic teacher education

Debates on the merits of special or generic curricula and pedagogies flow into disputes about the most effective way to organise teacher education. It is evident that case study countries differed markedly in their focus on the education of special educators. In the US, such professionals have high levels of expertise and formal qualifications are required to teach pupils with particular difficulties. US universities have thriving departments of special education, where it is normal to find experts in a range of learning difficulties and rooted in a variety of disciplines including medicine, psychology and sociology. In Flanders, special qualifications were needed to teach in special schools, but not mainstream. In other countries (Greece, Sweden and England), teacher education was more ad hoc, with a limited focus on special educational needs in initial teacher education and some specialist post-graduate provision, particularly for teachers of blind and deaf children, where additional qualifications tended to be mandatory. However, in these countries many learning support teachers did not have specialist qualifications, leading to wide differences in expertise. Overall, it is evident that an emphasis on specialist knowledge has both upsides and downsides. On the one hand, it emphasises the point that children with SEN require different teaching approaches from others, which only experts can deliver, and potentially plays up the salience of their impairment as the principal factor dictating their educational experience. On the other hand, acknowledging that some differences may be salient to a child's learning may have positive consequences in producing far more sophisticated approaches to diagnosis and pedagogy, and such expert special educators may be in a better position to support others.

Whether special expertise is emphasised or not, it is evident that the initial and continuing professional development experiences of teachers impacts on the effectiveness of provision for pupils with SEN. Poulou and Norwich (2002: 130), in considering teachers' ability to support pupils with EBD, argued that teacher training should focus on teachers' cognitive and affective responses and should encourage them to believe that children's problems are susceptible to improvement. In addition, teachers needed to internalise responsibility for producing better outcomes in children's lives. (Poulou and Norwich, 2002:130). EADSNE (2001) indicated that, while formal opportunities might be important, teachers learned mostly from significant key persons, such as colleagues in and around the school, with whom they came into contact (EADSNE, 2001). This lends weight to the view that collaboration between key staff supporting pupils is an important aspect in achieving quality provision, providing not just more integrated support for pupils but also opportunities for staff development.

EADSNE (2001) indicates that teacher attitudes towards inclusion can be decisive in ensuring its effectiveness. A number of contributory studies to the EADSNE suggested that the values and attitudes of teachers represent a key factor in effective classroom provision:

> If mainstream teachers do not accept the education of these pupils as an integral part of their job, they will try to ensure that someone else (often the special needs teacher)

> takes responsibility for these pupils and will organise covert segregation in the school (e.g. the special class). (EADSNE, 2001: 10)

Teacher attitudes influence the nature of interactions and relationships in classrooms and with others, especially parents, beyond the classroom. Where teachers feel positively disposed towards inclusion, they will foster significant social relations between disabled and non-disabled pupils and their parents (EADSNE, 2001:11).

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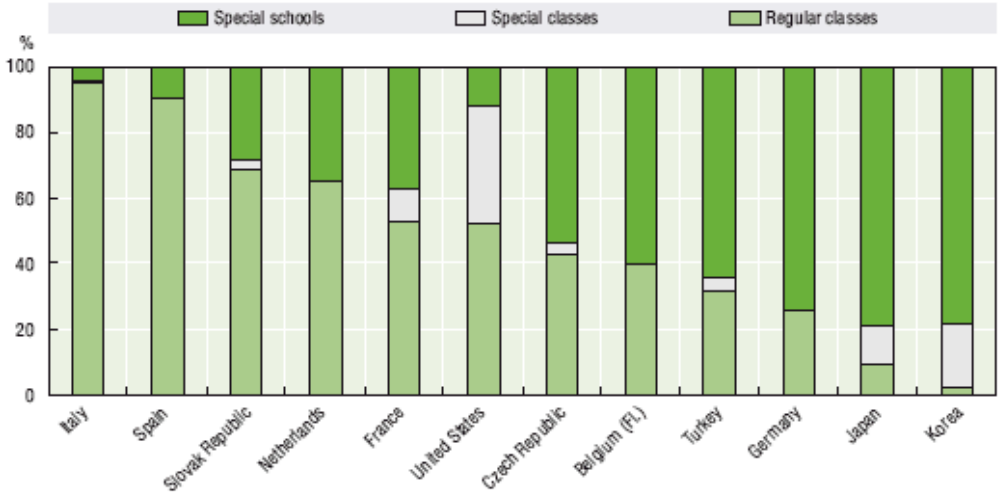
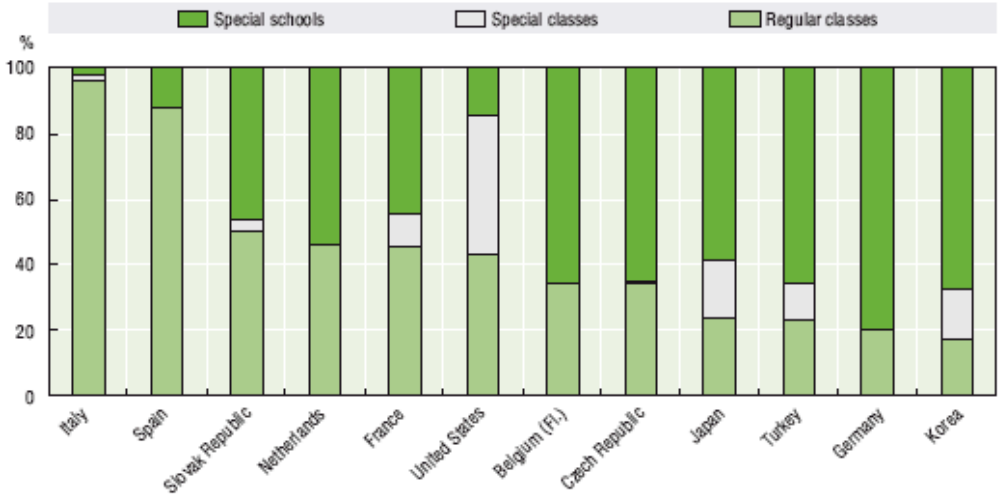
Appendix A

Figure A.1: Numbers of blind and partially sighted students by location and by country, as a percentage of all blind and partially sighted students in primary and lower secondary education



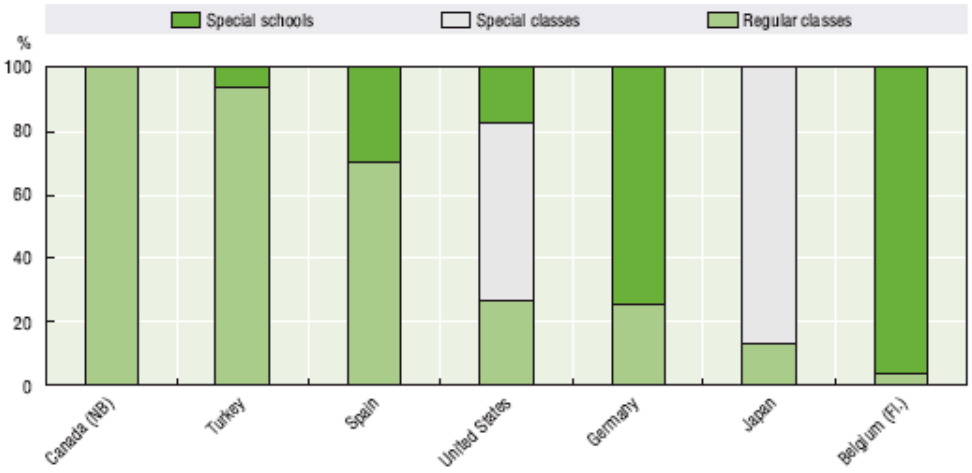
1. In France and Germany the data refer to the period of compulsory education.
2. In Germany and Spain data for special classes are included in special schools.
3. For regular classes in Belgium (Fl.) data refer to primary, lower secondary and upper secondary.
4. In France data for regular classes may be inflated since students from the Ministry of Education only are taken into account here.

Figure A.2: Numbers of deaf and partially hearing students by location and by country, as a percentage of all deaf and partially hearing students in primary and lower secondary education



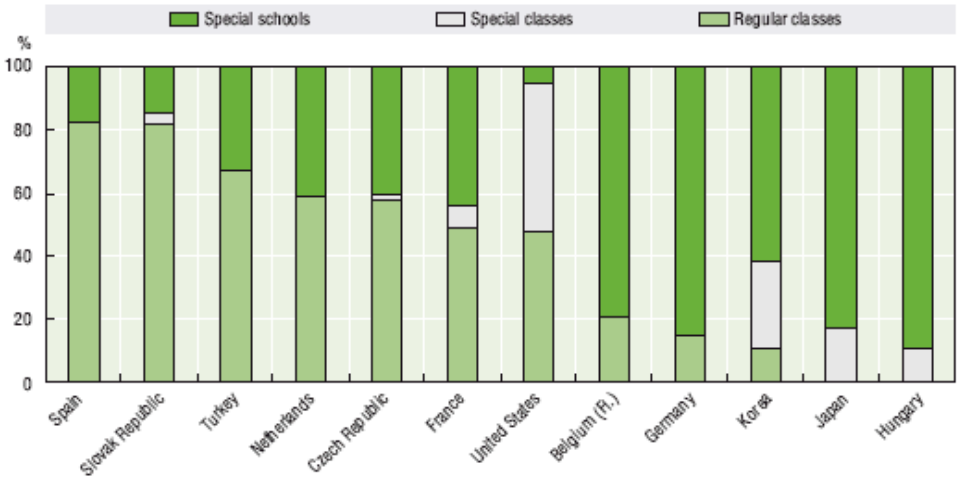
1. In France and Germany the data refer to the period of compulsory education.
2. In Germany and Spain data for special classes are included in special schools.
3. In France data for regular classes may be inflated since students from the Ministry of Education only are taken into account here.

Figure A.3: Numbers of students with emotional and/or behavioural difficulties by location and by country, as a percentage of students with emotional and/or behavioural difficulties in primary and lower secondary education



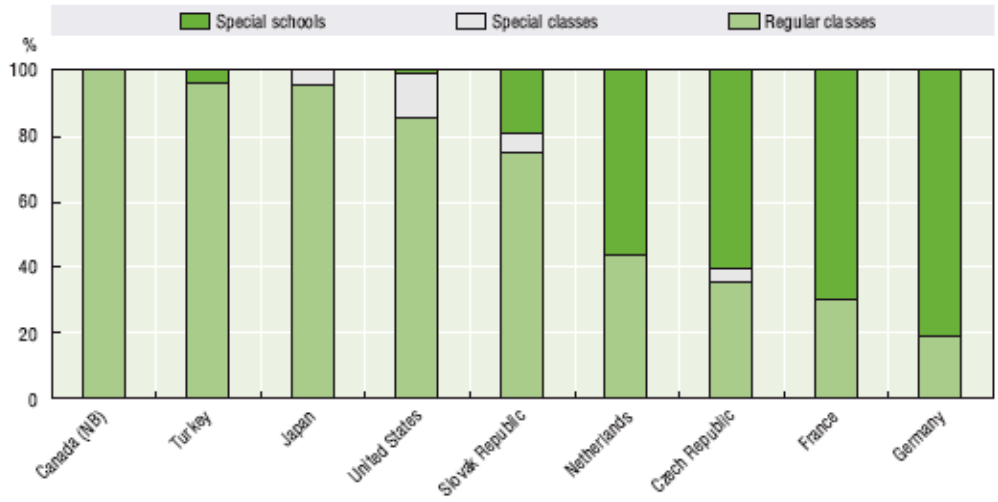
1. In Germany the data refer to the period of compulsory education.

Figure A.4: Numbers of students with physical disabilities by location and by country, as a percentage of all students in primary and lower secondary education



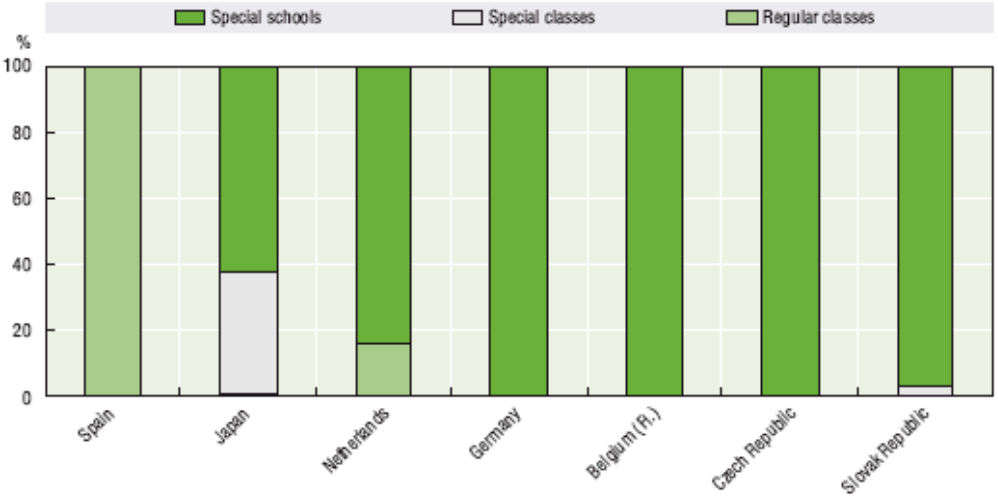
1. In France and Germany the data refer to the period of compulsory education.
2. For regular classes in Belgium (Fl.) data refer to primary, lower secondary and upper secondary.

Figure A.5: Numbers of students with speech and language problems by location and by country, as a percentage of all students with speech and language problems in primary and lower secondary education



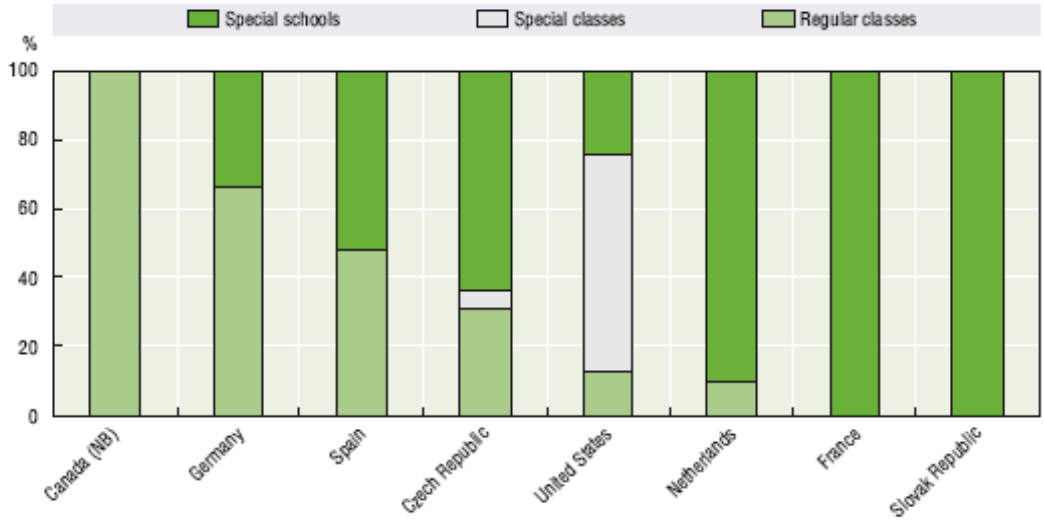
1. In France and Germany the data refer to the period of compulsory education.

Figure A.6: Numbers of students in hospitals by location and by country, as a percentage of all students in hospitals in primary and lower secondary education



1. In Germany data refer to the period of compulsory education.

Figure A.7: Numbers of students with combinatorial disabilities by location and by country, as a percentage of all students with combinatorial disabilities in primary and lower secondary education



1. In France and Germany data refer to the period of compulsory education.

Figure A.8: Numbers of students with autism by location and by country, as a percentage of all students with autism in primary and lower secondary education

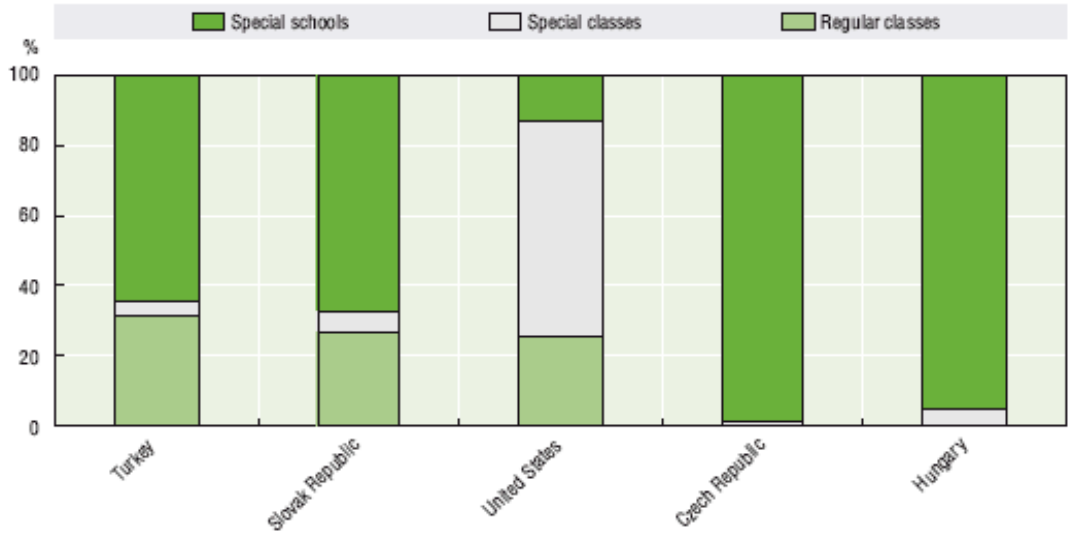
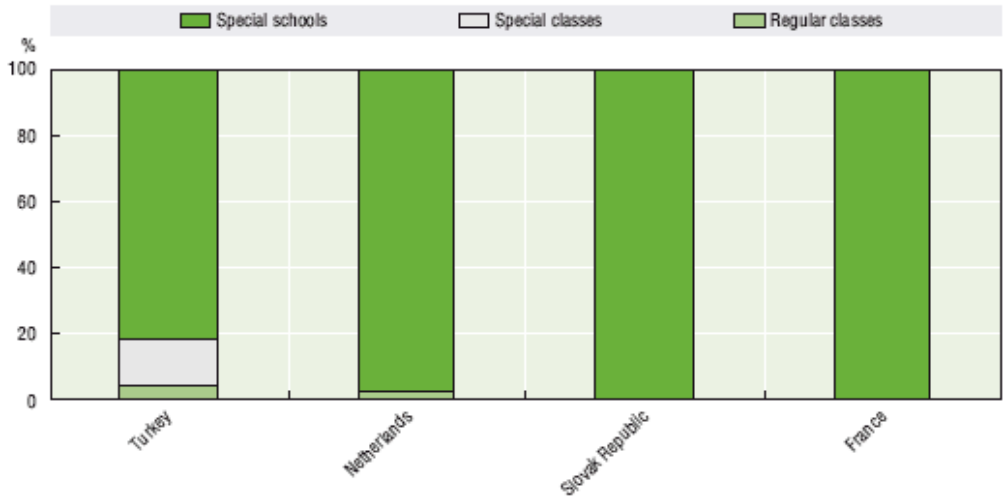
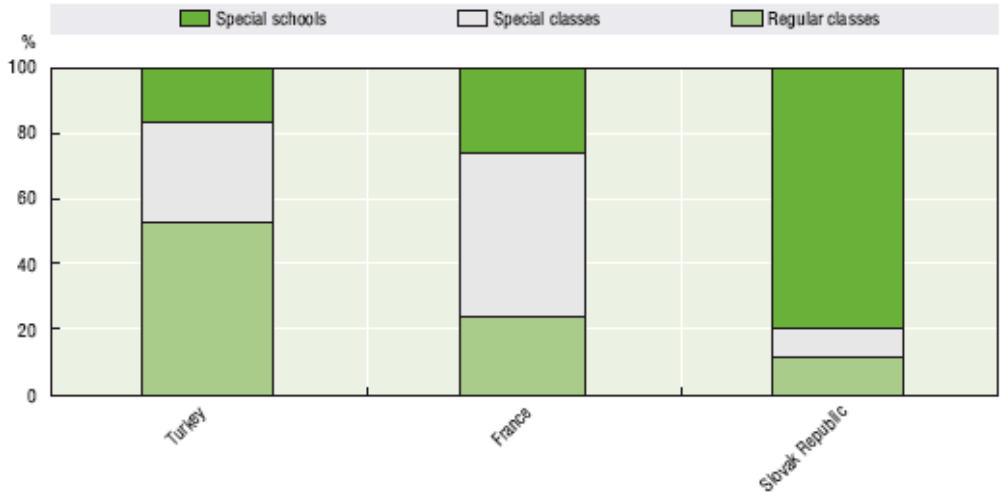


Figure A.9: Numbers of students with severe learning problems by location and by country, as a percentage of all students with severe learning problems in primary and lower secondary education



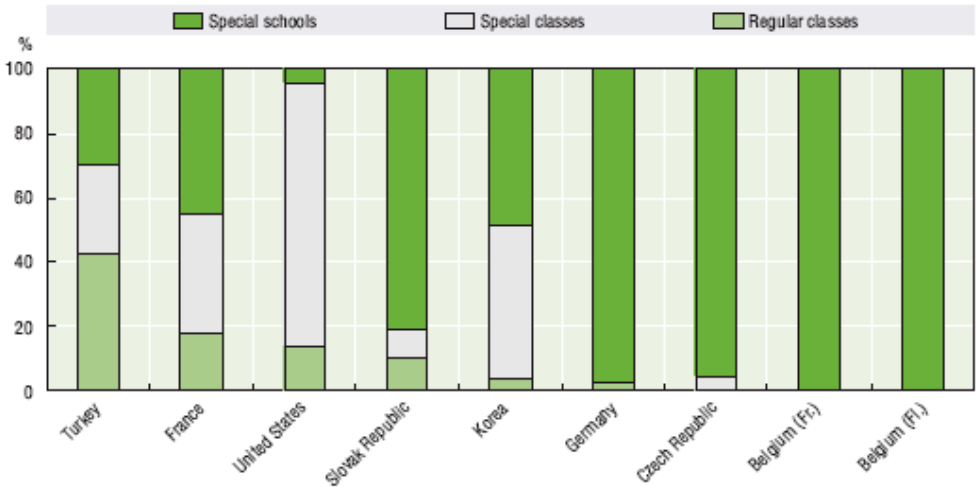
1. In France data refer to the period of compulsory education.

Figure A.10: Numbers of students with moderate learning problems by location and by country, as a percentage of all students with moderate learning problems in primary and lower secondary education



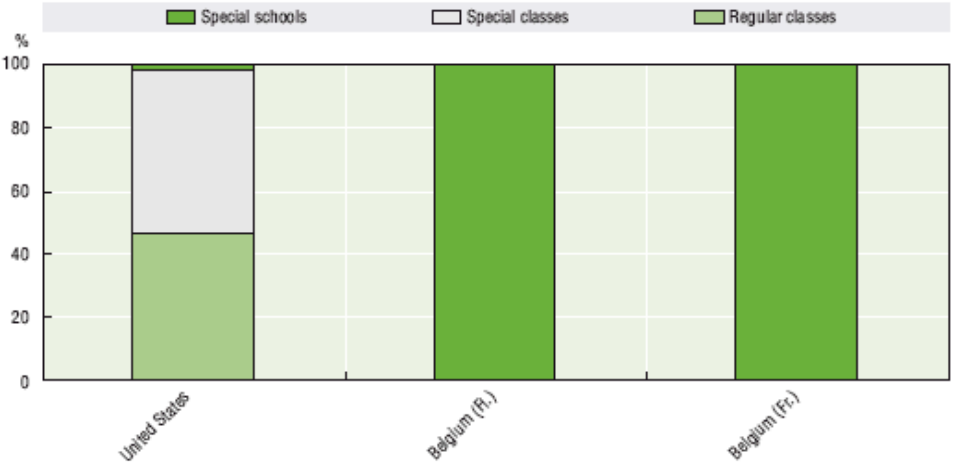
1. In France data refer to the period of compulsory education.

Figure A.11: Numbers of students with severe and/or moderate learning problems by location and by country, as a percentage of all students with severe and/or moderate learning problems in primary and lower secondary education



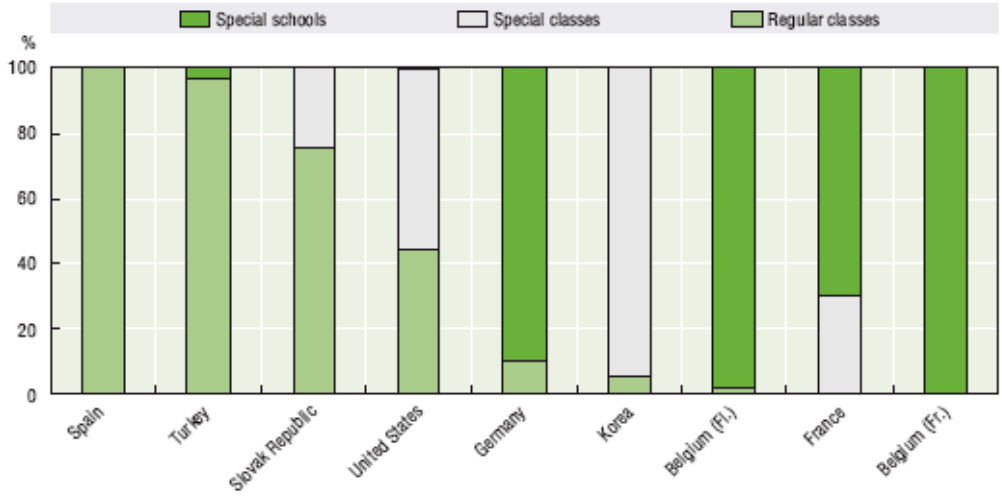
1. In France and Germany data refer to the period of compulsory education.

Figure A.12: Numbers of students with light learning problems by location and by country, as a percentage of all students with light learning problems in primary and lower secondary education



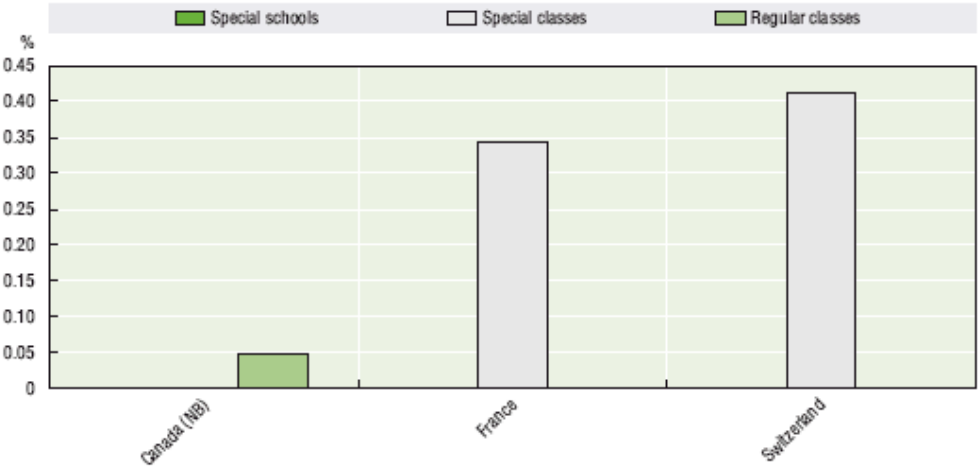
1. In the United States data refer to the period of compulsory education.
2. For regular classes in Belgium (Fl.) data refer to primary, lower secondary and upper secondary education.

Figure A.13: Numbers of students with specific learning difficulties by phases of education and by country, as a percentage of all students in that phase of education



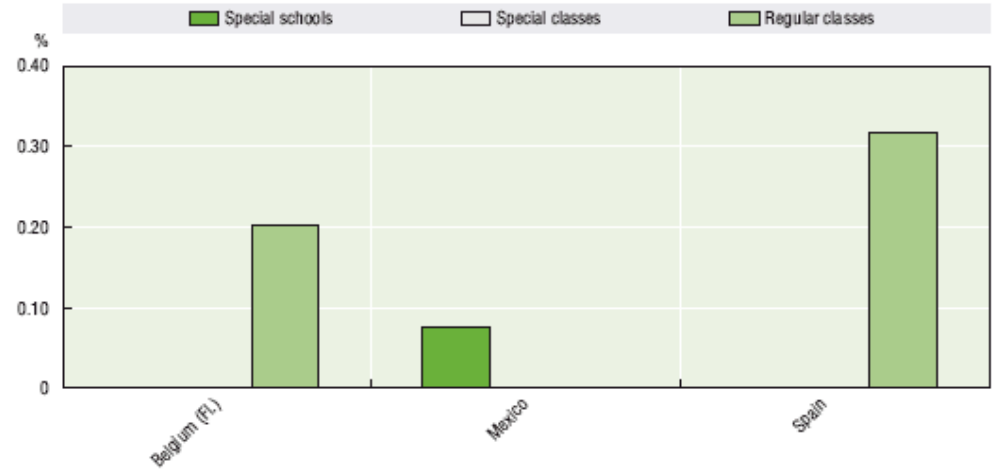
1. In France and Germany data refer to the period of compulsory education.

Figure A.14: Numbers of second languages and mother tongue teaching students by location and by country as a percentage of all students in primary and lower secondary education



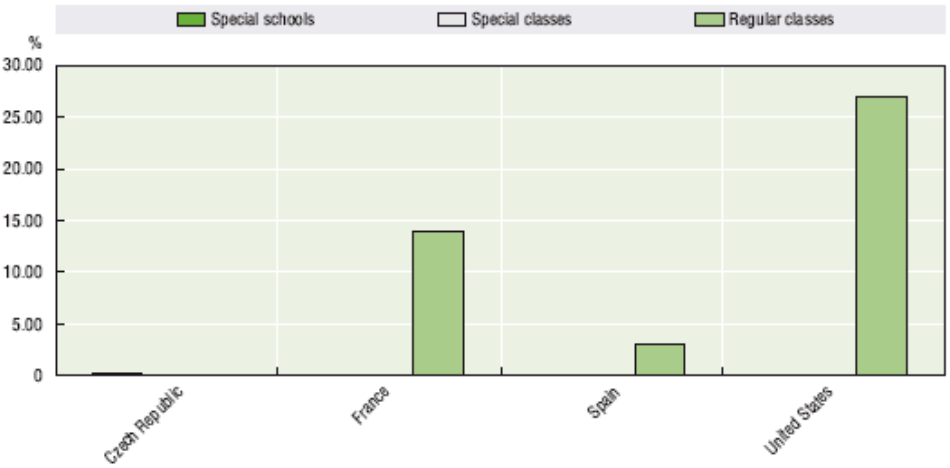
1. In France and Switzerland data refer to the period of compulsory education.
2. For special schools in Canada (NB), France and Switzerland data are not applicable.
3. For special classes in Canada (NB) data are not applicable.
4. For regular classes in France data are not applicable; in Switzerland data are not available.

Figure A.15: Numbers of travelling students by location and by country, as a percentage of all students in primary and lower secondary education



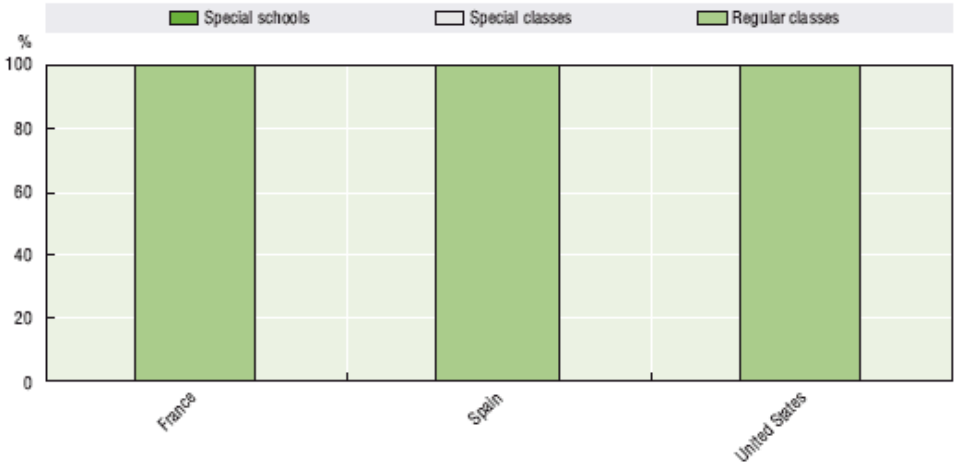
1. In Belgium (Fl.) data for special schools and special classes are not applicable. Education for travelling students is only organised i classes at pre-primary and primary levels.
2. In Mexico data for special classes and regular classes are not available.
3. In Spain data for special classes are not applicable.

Figure A.16: Numbers of disadvantaged students by location and by country, as a percentage of all students in primary and lower secondary education



1. In France data refer to the period of compulsory education.
2. Data for the United States are estimates.
3. For special schools in France, Spain and the United States data are not applicable.
4. For special classes data are not applicable in any country.
5. For regular classes in the Czech Republic data are not available.

Figure A.17: Numbers of disadvantaged students by location and by country, as a percentage of all disadvantaged students in primary and lower secondary education



1. In France data refer to the period of compulsory education.

Notes

Canada (NB): Note that for New Brunswick the data have been submitted by District 18 only. School District 18 is one of 13 school districts (9 anglophone, 4 francophone) that organises education in the Province of New Brunswick. The total student population is approximately 120 600 (84 575 anglophone, 36 025 francophone). School District 18 has 12 832 students served by over 1 200 employees. Pre-primary students are not part of the public school system.

Finland: Only upper secondary data refer to the school year 2000. Therefore all others levels have been omitted.

France: Only students administered by the Ministry of Education are included in this chapter, *i.e.* students administered by the Ministry of Health have been omitted. This probably inflates the distribution of students in regular classes.

Germany: Data on students in special classes are included in special schools (for all categories). The distribution of pre-primary to public and private institutions is estimated for all categories.

Greece: Special schools: the available data for lower and upper secondary education are combined. Regular classes: in the Greek educational system these are under special classes.

Italy: In regular classes pre-primary schools dependent of municipalities are not included: there are about 1 700 (estimated) children with disabilities. Figures are estimated for the total number of students in the different phases of education.

Mexico: Upper secondary education does not apply. In special classes totals only are available, there is no individual breakdown of category.

Spain: The numbers of students in special classes are included in special schools. There are a small number of students in special classes, but for the Spanish educational system these classes are considered to be special schools.

Switzerland: Data regarding students in regular classes are missing. Data relating to the Swiss education statistics have been compiled according to classes. Therefore there are no statistical data on aspects of integrated education. Data on students, teachers and financial resources are not derived from a single source. As a consequence it is not possible to combine the various information in a regular manner. Besides, information on financial resources is difficult to obtain on a reliable basis and therefore not provided. Teachers are the

only category on which statistical data on staff exist. Nevertheless even such information is limited and not as detailed as the categories of disabilities in students. The entire data on special education are limited to a single description of “compulsory schooling”. The different ISCED levels cannot be separated out.

United Kingdom (Eng.): Data include figures collected for England only. Special classes are included in regular classes.

Sweden: Since data are incomplete they are not included.