EDUCATION THAT FITS:
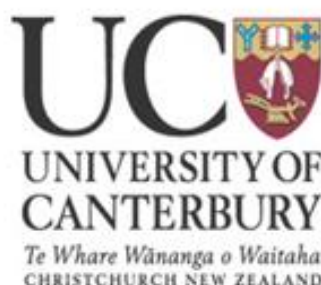## REVIEW OF
INTERNATIONAL TRENDS IN
THE EDUCATION OF STUDENTS WITH
SPECIAL EDUCATIONAL NEEDS
Second edition

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
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ACKNOWLEDGEMENT

EXECUTIVE SUMMARY

Chapter One: Introduction

1. *This review is is an update of an earlier review of international trends in the education of students with special educational needs (Mitchell, 2010).*

2. *It examines 24 major issues, ranging from paradigms of special educational needs through the administration of special education, to school and classroom policies and practices.*

3. *Throughout the review, the term 'students with special educational needs' (abbreviated as SWSEN) will generally be employed.*

4. *Developments in special and inclusive education show similar trajectories across countries, especially those in the developed western world.*

5. *Broadly, there are four main sources of convergence of policies and practices: international conventions, the dissemination of influential legislation especially from the US and UK, the research literature and, more recently, the Internet.*

6. *In many ways, special education is a microcosm of education more generally and, indeed, of society as a whole.*

Chapter Two: Philosophical Underpinnings

1. *Valuing diversity can bring about several desirable outcomes, including: (a) enhancing social development by expanding the pool of people with whom individuals can associate and develop relationships; (b) preparing students for future career success by becoming sensitive to human differences and able to relate to people of different abilities; (c) increasing individuals' knowledge base and creative thinking by interacting with a diverse group of people; (d) enhancing self-awareness by students comparing and contrasting their life experiences with others who may differ sharply.*

2. *Morally, there is a strong argument for valuing diversity, arising from the doctrine of human rights, which aims at identifying the fundamental prerequisites for each human being to lead a minimally good life and to enjoy the full rights of citizenship. It rests upon belief in the existence of a truly universal moral community comprising all human beings.*

3. *A related position on human rights argues that each individual owes a basic and general duty to respect the rights of every other individual because, by doing so, one's individual self-interest is furthered. From this perspective, individuals accept and comply with human rights because this is the best means for protecting one's interests against actions and omissions that might endanger themselves.*

4. *When considering human rights, it is useful to distinguish between 'positive claims rights' and 'negative claims rights.' The former enjoins us to treat individuals in a positive manner by, for example, providing appropriate education, irrespective of an individual's degree of disability. The guiding principle in the latter is that we should do no harm to people who are different.*

5. *In understanding the basis of human rights, we must consider arguments about which economic framework and which resulting distribution of wealth is morally preferable. Deciding on the principles of 'distributive justice' that should apply is extremely significant for determining how societies respond to differences among its citizens, particularly how they behave towards those who are disadvantaged – and especially towards SWSEN. Consideration is given to five main approaches to distributive justice:*

   a. *Strict egalitarianism calls for the allocation of equal material goods to all members of society, on the grounds that people are morally equal. This approach has been criticised as being untenable and that it conflicts, for example, with what people might deserve and their freedom rights.*

   b. *Libertarianism centres on the moral demands of liberty or self-ownership. Advocates argue for unrestricted markets and limited government regulation or interference in the name of human freedom. With its emphasis upon individualism, managerialism, and competition within education, it is not a strong philosophical basis for achieving equity for SWSEN.*

   c. *Utilitarianism argues that actions are right if they are useful or for the benefit of a majority. Only those actions that maximise utility (i.e., produce pleasure or happiness and prevent pain or suffering) are deemed to be morally right. Further, the greatest happiness of the greatest number of people should guide our conduct.*

   d. *Immanuel Kant argued for the ideal of a potentially universal community of rational individuals autonomously determining the moral principles for*

securing rights. His emphasis on human dignity and doing the right thing because it is right, not for some ulterior motive, informs present-day notions of universal human rights.

e. *John Rawls put forward two essential principles of justice. The first is that each person has equal basic rights and liberties, such as freedom of speech and religion. The second he referred to as the 'difference principle', in which he argued that divergence from strict equality is permitted so long as the inequalities in question would make the least advantaged in society materially better off than they would be under strict equality.*

Chapter Three: Paradigms of Special Educational Needs

1. *A paradigm is an ideology or frame of reference. It is the way one perceives, understands, or interprets a topic or issue.*

2. *During its history, the broad field of special education has been the site of quite different paradigms, or models, which posit certain relationships between individuals with disabilities and their environments.*

3. *This chapter examined the three most dominant paradigms:*
   a. *the psycho-medical paradigm, which focuses on the assumption that deficits are located within individual students,*
   b. *the socio-political paradigm, which focuses on structural inequalities at the macro-social level being reproduced at the institutional level, and*
   c. *the organisational paradigm, in which special education is seen as the consequence of inadequacies in mainstream schools.*

4. *While most countries have a mix of paradigms underlying their educational provisions for SWSEN, the preponderant paradigm remains the psycho-medical model, which still retains its adherents even when other paradigms that place an emphasis on the environment have gained traction in recent years.*

5. *It cannot yet be said that that the field has undergone a Kuhnian 'paradigm shift', in which traditional paradigms are discarded in favour of the new.*

Chapter Four: Definitions, Categorisation and Terminology

1. *There is no universal agreement as to how SWSEN should be referred to, how they should be defined and what, if any, categories they should be divided into.*

2. *Differences in definitions and categorisation influence the structure and function of special education services and how they are funded.*

3. *This diversity reflects a variety of factors, including different philosophical positions; the history of organisations/systems; local traditions within school districts; legal foundations; and fiscal policies and constraints.*

4. *In order to deal with this diversity, the OECD obtained agreement across countries to re-allocate their national categories into three types:*

    a. *Category A: Disabilities: students with disabilities or impairments viewed in medical terms as organic disorders attributable to organic pathologies; their educational need is considered to arise primarily from problems attributable to these disabilities.*

    b. *Category B: Difficulties: students with behavioural or emotional disorders, or specific difficulties in learning, arising primarily from problems in the interaction between the student and the educational context.*

    c. *Category C: Disadvantages: students with disadvantages arising primarily from socio-economic, cultural, and/or linguistic factors, and whose educational need is to compensate for the disadvantages attributable to these factors.*

5. *In category A, the number of national sub-categories in OECD countries varied from two to 19, with most countries having 12 or 13 sub-categories and nine sub-categories being found in virtually every country.*

6. *Countries differed the most in relation to category C.*

7. *Some countries have adopted an anti-category approach, although none have abandoned them entirely and some are returning to a limited form of categorisation.*

8. *In the US, the President's Commission on Excellence in Special Education (2002) was very critical of what it referred to as 'the proliferation of categories and assessment guidelines that vary in their implementation, often with little relation to intervention'.*

9. *Several problems with classifications based on disability categories have been identified:*

    a. *they mask the role that constraining educational systems may play in creating failure,*

    b. *they wrongly suggest homogeneity within various diagnostic categories,*

> c. *many SWSEN do not manifest demonstrable disabilities,*
>
> d. *studies show that instruction based on disability categories is of limited utility,*
>
> e. *they require some judgement to be exercised about the relevant cut-off points for special educational purposes,*
>
> f. *issues of category boundaries arise through the co-occurrence of various disabilities, and*
>
> g. *disability categories may militate against seeing the student holistically.*

10. *As well as the diversity of categories outlined above, there are differences in the way the broad field of provisions are described internationally. There are three main divisions: 'special education', 'inclusive education', and hybrids of the two.*

Chapter Five: Disproportionality in Special Education

1. *Disproportionality, or disproportionate representation, is generally defined as the representation of a particular group of students at a rate different than that found in the general population.*

2. *There is an irony in considering over-representation to be a problem if students are purportedly gaining the advantage of special education.*

3. *There is clear international evidence of disproportionality of students from ethnic minority backgrounds in special education.*

4. *However, some caveats have been entered regarding the evidential basis of ethnic disproportionality– at least in that coming out of the US.*

5. *The consistent overlap of race and poverty in the US has led some to suggest that race is simply a proxy for poverty and that ethnic disproportionality in special education is in large measure an artefact of the effects of poverty. However, the evidence suggests that where poverty makes any contribution to explaining disproportionality, its effect is primarily to magnify already existing racial disparities.*

6. *There is an extensive literature on how schools can prevent underachievement and failure at the school level, thus obviating the need for special education placement.*

7. *There is clear international evidence of a gender imbalance in the incidence of disabilities, special education enrolments and academic achievement.*

8. *Since the 1960s, the overall male to female ratio in special education has been between 2:1 and 3:1.*

9. *Some writers portray the gender imbalance as reflecting either or both an over-identification of males and an under-identification of girls.*

10. *In addressing the question of the over-representation of males in special education and the corollary phenomenon of more underachievement among boys, a range of reasons have been advanced. These include:*
    a. *biological factors*
    b. *unacceptable behaviour patterns*
    c. *peer influences*
    d. *learning strategies*
    e. *under-identification of girls*
    f. *school factors*
    g. *ethnicity*
    h. *students' age*

11. *Educators should recognise that, in general, boys are biologically at higher risk than girls for certain disabilities and should accommodate their teaching to take any associated learning difficulties into account.*

12. *Poverty has a negative impact on child development and is associated with a higher prevalence of some disabilities.*

13. *In the case of students whose special educational needs are more clearly associated with environmental factors, schools should carefully evaluate their policies and procedures to deal with these factors.*

14. *Schools and those responsible for assessing students' needs for special support should re-examine their criteria to ensure that problems that girls may have are not overlooked.*

Chapter Six: Developments in Neuroscience

1. *The brain, with its 100 billion nerve cells, is the seat of our mental faculties, regulating our bodily functions, as well as performing such higher functions as language, reasoning, and memory.*

2. *The brain has a complex architecture, with various regions being responsible for various functions.*

3. *If for any reason any components of the brain are not functioning optimally, a person's capacity to learn will be affected. These reasons could be genetic or*

environmental. Research is increasingly helping us to understand the underlying causes, suggesting ways of preventing or remediating them by targeting each learner's strengths and weaknesses.

4. *Neuroscience is giving us fruitful leads to follow, a situation that will undoubtedly improve in the future.*

5. *We know an increasing amount about two related principles of brain development, namely that 'neurons that fire together, wire together', and 'use it or lose it'.*

6. *There are sensitive periods when certain types are learning are optimal.*

7. *The executive system plays a critical role in problem solving. It is goal-oriented and it consciously controls, edits, plans, directs, and monitors our behaviour.*

8. *Recent advances in the neurosciences of emotions are highlighting the connections between cognition and emotion that have the potential to revolutionise our understanding of learning.*

9. *Research is increasingly confirming that neurological factors contribute to a range of disabilities, as a result of either significant or minimal central nervous system dysfunction.*

10. *It is becoming increasingly clear that sex matters in the development and functioning of the brain.*

11. *It is possible that brain differences cause the cognitive differences or that greater participation in various activities cause the brain differences.*

Chapter Seven: Response to Intervention and Graduated Response

1. *Response to Intervention (RtI) focuses on student outcomes and the evaluation of intervention.*

2. *In the US, RtI has a statutory and regulatory foundation, IDEA 2004 favouring a process in which the child 'responds to scientific, research-based intervention'. This arose from a recommendation of the President's Commission on Excellence in Special Education in 2002.*

3. *The National Center on Response to Intervention in the US defines RtI as '[The integration] of assessment and intervention within a multi-level prevention system to maximise student achievement and to reduce behavior problems. With RtI, schools identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust the intensity and nature of those*

interventions depending on a student's responsiveness, and identify students with learning disabilities'.

4. *Important educational decisions about the intensity and the likely duration of interventions are based on an individual student's response to instruction across multiple (usually three) tiers of intervention:*

   a. *Tier I: core classroom instruction. This contains the core curriculum (both academic and behavioural), which should be effective for approximately 80% -85% of the students. If a significant number of students are not successful in the core curriculum, RtI suggests that instructional variables, curricular variables and structural variables (e.g., building schedules) should be examined to determine where instruction needs to be strengthened, while at the same time addressing the learning needs of the students not being successful. The teaching programme should comprise evidence-based instruction and the curriculum and should be the responsibility of the general education teacher.*

   b. *Tier II: supplemental (or secondary) instruction. Interventions serve approximately 15-20% of students (some writers go as high as 30%) who have been identified as having continuing difficulties and who have not responded to normal instruction. This tier is still the responsibility of the general education teacher, but with the assistance of a relevant specialist.*

   c. *Tier III: Instruction for intensive intervention (tertiary). This tier serves approximately 5-10% (some say as few as 2%) of students and is targeted at those with extreme difficulties in academic, social and/or behavioural domains who have not responded adequately to Tier I and Tier II efforts. Students at this tier receive intensive, individual and/or small group interventions for an additional hour per day, with daily progress monitoring of critical skills. At this level a trained specialist would be involved. If Tier III is not successful, a student is considered for the first time in RtI as being potentially disabled.*

5. *For RtI to be effectively implemented, several conditions have to be met. These include:*

   a. *effective assessment procedures should be in place;*

   b. *evidence-based teaching strategies should be employed;*

  c. a structured, systematic problem-solving process should be implemented;

  d. teachers, principals and specialists should receive appropriate pre-service training and in-service professional development on RtI;

  e. adequate resources need to be made available; and

  f. parents should be involved in the decision-making processes.

6. *Although there is relatively little evidence as to the effectiveness of RtI, what research has been reported is encouraging.*

7. *In England, the system of 'Graduated Response' bears a close similarity to RtI. This approach (being phased out in 2015) recognises that there is a continuum of special educational needs and brings increasing specialist expertise to bear. The first level assumes that the classroom teachers do all they can do to provide an appropriate education for their students through differentiated teaching. If this is not succeeding, the second level, 'School Action' is implemented. This involves providing interventions that are additional to or different from those provided as part of the school's differentiated curriculum. Should further help be required, a request for external services is likely, through what is referred to as 'School Action Plus'. The next step in the process is for the school to request a statutory assessment.*

Chapter Eight: The Educational Context

1. *Policies and practices relating to the education of SWSEN must take account of the general educational context, especially those aspects that are derived from such neo-liberal philosophies as marketisation, decentralisation/devolution, choice, competition, and the setting of accountability criteria such as standards and high-stakes testing.*

2. *Neoliberalism in education centres on the twin notions of reducing the size of state involvement in education and exposing schools to the competitive forces of the free market.*

3. *In most countries, the direction of the shifts in administration has been centrifugal (i.e., away from the centre), but in some it has been centripetal (towards the centre), and in still others there have been fluctuations in the balance as new settlements are reached.*

4. *According to some writers, neo-liberal market philosophies contain many elements that tend to work against equity, the valuing of diversity and inclusive education.*

5. *The shift of focus to outputs in the education system is making 'unproductive' students less welcome in schools.*

6. *The implication of these (presumably) unintended consequence is that the state may see itself as having an obligation to intervene to ensure that such consequences are prevented or ameliorated. It can do this through legislation or regulation and by close monitoring of schools' behaviour.*

7. *The coexistence of inclusive education provisions and special schools (which is the case in almost every country) suggests that choices must be exercised as to where SWSEN are 'placed'. In this process, the relative weight given to the preferences of SWSEN and their parents and those who administer education systems constitutes a major point of tension.*

8. *Accountability boils down to the multi-faceted question of who should be held responsible for what, how they can be evaluated, and with what consequences? Its scope therefore is quite complex.*

9. *Increasingly, decisions at all of these levels are evidence-driven, or are being expected to be evidence-driven.*

10. *How to measure the educational performance of SWSEN with validity and reliability is one of the major contemporary challenges facing educators around the world.*

11. *Several countries have developed policies requiring SWSEN to have access to general education accountability systems,*

12. *One of the educational battle cries in many countries since the 1990s has been for 'standards-based reform', with its goal of higher and more rigorous achievement standards for all students, including those with special educational needs.*

13. *Leadership should be exercised throughout an education system: by legislators, policy-makers, school governing bodies, principals and teachers. At the school level, developing a school culture for SWSEN requires the exercise of leadership, particularly by the principal, but also by others in a school.*

Chapter Nine: Funding and Resourcing

1. *The means of allocating resources to SWSEN, and the quantum of these resources, has long exercised policy-makers around the world, and continues to do so.*

2. *Funding is impinged on and, in turn impinges upon almost every issue explored in this review.*

3. *Historically, funding arrangements for special education have often been kept administratively separate from the mechanisms that govern fiscal resources for general education.*

4. *For the past decade or so, funding models for special education have been under review in many countries, driven by rising costs, concerns over efficiency and equity in the use of resources, and concerns about the incentives inherent in funding formulae for contra-indicated practices.*

5. *There is not a strong body of evidence to show that finance in itself has a direct and major effect on student learning outcomes.*

6. *Research has found, however, that particular types of expenditure do have a positive impact on student learning.*

7. *Overall, per student education expenditures for those who receive special education services in the US are 1.91 times greater than expenditures for students who received no special education services. This is comparable to other estimates.*

8. *Three funding models can be identified: (a) demand (b) supply, and (c) output. Each one has advantages and disadvantages, with the consequence that many countries employ mixed funding models.*

9. *Another taxonomy of funding models, based on the sources of funding for SWSEN, has five categories: (a) discretionary funding, (b) categorical funding, (c) voucher-based funding, (d) census-based funding, and (e) actual-cost funding.*

10. *Sources of funding for SWSEN vary considerably among countries, with different proportions coming from national, state and local educational authorities.*

11. *General principles that should be taken into account in determining the most appropriate funding model(s) for SWSEN include:*

    a. *The starting point should not be with how to fund special education, but rather with how to fund general education.*

    b. *Every funding model has strengths and weaknesses, incentives and disincentives, and positive and negative outcomes that may affect different students differentially, so a combination of funding models seems desirable.*

    c. *Resources should be allocated in ways that are coherent with, and promote, system policy.*

    d. *Arrangements to ensure accountability, including the monitoring of the use of resources and outcomes for children, should be included.*

12. *In addition to meeting these principles, funding models should be transparent, adequate, efficient, equitable, robust and free from unintended consequences.*

13. *In evaluating the worth of funding arrangements, consideration should be given to the extent they facilitate inclusive education.*

Chapter Ten: Curriculum

1. *Approaches to conceptualising curricula for students with disabilities have moved from a developmental model in the 1970s, through a functional model in the 1980s and 1990s, to the contemporary model of embracing ways of enabling such students to participate in the general education curriculum.*

2. *In the US, IDEA 1997, IDEIA 2004 and the No Child Left Behind Act of 2001 specified that all students, including those with significant cognitive disabilities, must have the opportunity to participate and progress in the general curriculum.*

3. *To make the curriculum accessible, consideration should be given to the following alternatives in relation to content, teaching materials, and the responses expected from the learners: (a) modifications (e.g., computer responses instead of oral responses, enlarging the print), (b) substitutions (e.g., Braille for written materials); (c) omissions (e.g., omitting very complex work); and (d) compensations (e.g., self care skills).*

4. *Other modifications can include (a) expecting the same, but only less, (b) streamlining the curriculum by reducing its size or breadth, (c) employing the same activity but infusing IEP objectives, and (d) curriculum overlapping to help students grasp the connections between different subjects, for example.*

Chapter Eleven: Assessment

1. *Increasingly, SWSEN, including those with significant cognitive disabilities, are being expected to participate in their countries' national or state assessment regimes.*

2. *High stakes assessments can have the effects of jeopardising inclusive education, a risk that can be exacerbated by the effects of international comparative studies of educational standards.*

3. *In the US, legislation since IDEA 1997 does not allow SWSEN to be exempted from their states' assessment programmes. Instead, educational authorities are required to provide alternate assessment for students who cannot participate in state or district assessments with or without accommodations. IEPs now must include a statement of any accommodations that are necessary to measure the academic achievement and functional performance of such students on state- and district-wide assessments.*

4. *The main types of alternate assessments comprise portfolios, IEP-linked bodies of evidence, performance assessments, checklists and traditional paper and pencil tests.*

5. *The assumptions underlying these provisions are twofold: (a) that higher expectations will lead to improved instructional programmes and (b) that these will lead in turn to higher student achievement.*

6. *The requirements for all students to participate in state- and district-wide assessments have been shown in some research to have had unintended negative consequences for students with disabilities, including higher rates of academic failure, lower self-esteem, and concerns that they would experience higher drop-out rates.*

7. *Countries or states should include both content area specialists and experts in severe disabilities in validating performance indicators used in alternate assessment.*

8. *With the shift to all students being required to participate in their countries' national or state assessment regimes, teachers of students with disabilities will need professional development on their country's or state's academic standards, alternate achievement standards, and curriculum design that goes beyond functional domains.*

9. *Formative assessment has been associated with positive outcomes for SWSEN and with improvements in teachers' perceptions of students' performances.*

10. *Functional assessment is increasingly being applied, not only to behaviour, but also to learning in general.*

11. *In determining assessment policies, it is important to recognise and resolve as far as possible the tensions between measuring the health of the education system and protecting the interests of students with special educational needs. In other words, educational policy-makers should optimise both the needs of the system and those of its students in determining assessment policies.*

Chapter Twelve: Evidence-based Pedagogy

1. *Educators are increasingly expected to be responsible not only for helping students to achieve the best possible outcomes, but also for using the most scientifically valid methods to achieve them.*

2. *Evidence-based teaching strategies may be defined as 'clearly specified teaching strategies that have been shown in controlled research to be effective in bringing about desired outcomes in a delineated population of learners'.*

3. *All students, including SWSEN, benefit from a common set of strategies, even if they have to be adapted to take account of varying cognitive, emotional and social*

capabilities. What is required is the systematic, explicit and intensive application of a wide range of effective teaching strategies.

4. *To constitute evidence, research studies should meet criteria such as the following: (a) treatment fidelity, (b) reliable and valid measurement of behavioural outcomes, (c) adequate control of variables, (d) freedom from contamination, (e) adequate follow-up, (f) replicated in more than a single study, and (g) cost effectiveness.*

5. *Strategies that have a strong evidential base for use with SWSEN (and other students) may be grouped under four headings, according to their predominant underlying assumptions about how learning takes place: social, behavioural, constructivist and mixed.*

6. *A scale for evaluating teachers' use of evidence-based teaching strategies is described.*

7. *In order to bridge the research-practice gap, it is necessary that teacher education - both pre-service and in-service must be upgraded to deliver programmes based on evidence.*

Chapter Thirteen: Inclusive Education

1. *Inclusive education is one of the most dominant issues in the education of SWSEN.*

2. *It is not unproblematic, both conceptually and practically.*

3. *A commonly accepted definition of inclusive education is: SWSEN having full membership in age-appropriate classes in their neighbourhood schools, with appropriate supplementary aids and support services.*

4. *In recent years, the concept of inclusive education has been broadened to encompass not only students with disabilities, but also all students who may be disadvantaged.*

5. *Advocacy for inclusive education revolves around three main arguments:*
    a. *inclusive education is a basic human right;*
    b. *in designing educational programmes for students with disabilities, the focus must shift from the individual's impairments to the social context, a key feature of which should be a unitary education system dedicated to providing quality education for all students; and*
    c. *since there is no clear demarcation between the characteristics of students with and without disabilities, and there is no support for the contention that*

specific categories of students learn differently, separate provisions for such students cannot be justified.

6. *The characterisation, purpose and form of inclusive education reflect the relationships among the social, political, economic, cultural and historical contexts that are present at any one time in a particular country and/or local authority.*

7. *While many countries seem committed to inclusive education in their rhetoric, and even in their legislation and policies, practices often fall short.*

8. *The United Nations and its agency, UNESCO, have played, and are playing, a significant role in promoting inclusive education.*

9. *Inclusive education goes far beyond the physical placement of children with disabilities in general classrooms, but requires nothing less than transforming regular education by promoting school/classroom cultures, structures and practices that accommodate to diversity.*

10. *Several scales for evaluating inclusive education have been developed.*

11. *The evidence for inclusive education is mixed but generally positive, the majority of studies reporting either positive effects or no differences for inclusion, compared with more segregated provisions.*

12. *In general, the presence of SWSEN in regular classrooms does not have a negative impact on the achievement of other students, and often has a positive impact.*

13. *Criticisms of inclusive education have focused on what some writers consider to be an emphasis on ideology at the expense of empirical evidence and challenges to the view that the mainstream can incorporate students with disabilities when it has so many difficulties in accommodating existing student diversity.*

Chapter Fourteen: Transition from School to Post-school education and Work

1. *The purposes of transition programmes for students with disabilities include providing them with the academic and social skills to enable them to become competitively employed and/or to continue their participation in education, to enhance their economic and social welfare, and to enjoy an enhanced quality of life through becoming as independent as possible.*

2. *Transition programmes should be the shared responsibility of many agencies and organisations: education, labour, welfare, health, NGOs, and governments at various levels within country systems.*

3. *Individuals with disabilities are frequently overlooked as a productive labour force with many of them not working and not looking for work, but relying on their parents or family, or living on social welfare, for their economic and physical support.*

4. *Even in developed countries, employment rates for people with disabilities are very low.*

5. *There is no single pre-determined pathway for persons with disabilities throughout the transition process. One size does not fit all. Rather, there should be multiple options with flexibility to switch between school education, further education and workplace experience with relative ease.*

6. *The underlying philosophy driving transition planning for students with disabilities should be a strengths-based model, rather than a deficit model.*

7. *In planning transition programmes for students with disabilities, consideration should be given to six domains, each of which contains sets of standards: (1) raising awareness on the right to education and the right to employment, (2) strengthening policies, (3) strengthening personnel involved in transition, (4) strengthening school educational services, (5) strengthening cooperation, and (6) strengthening monitoring, evaluation and accountability.*

Chapter Fifteen: The Built Environment

1. *Learners who spend time in well-designed, well-maintained classrooms that are comfortable, well lit, reasonably quiet, and properly ventilated with healthy air will learn more efficiently and enjoy their educational experiences.*

2. *Children should receive 2-3 hours per day in daylight conditions.*

3. *What constitutes good design of indoor physical environments for SWSEN is also good design for all learners.*

4. *Recent research has highlighted the importance of considering the complex interactions and additive effects among various aspects of indoor environmental quality on student achievement.*

Chapter Sixteen: Disabilities, Conflicts and Crises

1. *Article 11 of the UN Convention on the Rights of Persons with Disabilities (United Nations, 2008), which requires that States take all necessary measures to ensure the protection and safety of persons with disabilities during situations of armed conflict, humanitarian emergencies, and natural disasters.*

2. *Persons with disabilities have the same legal rights as all others in a society to have their needs taken fully into account in disasters and conflicts, while at the same time receiving additional support that takes account of their needs.*

3. *Special attention should be paid to the needs of children with disabilities at times of disasters and conflicts.*

4. *In preparing for and responding to disasters and conflicts, consideration should be given to (a) mitigation, (b) preparedness; (c) response, and (d) recovery.*

5. *Action plans to deal with the impact of disasters and conflicts should be designed and implemented at all levels – globally, nationally, regionally and locally.*

6. *Persons with disabilities should be mainstreamed in the design and implementation of action plans.*

7. *Action plans should be comprehensive and include consideration of the basic needs of people with disabilities. Universal design should be an overarching principle in planning for and delivering such programmes.*

8. *Many agencies and organisations play significant roles in providing advocacy and/or services for persons with disabilities at times of crises.*

9. *Social networks at the community level play a critical role in dealing with conflicts and disasters.*

Chapter Seventeen: Non-inclusive Educational Settings

1. *The evidence related to student outcomes in inclusive education is usually compared with outcomes in some form of non-inclusive settings.*

2. *Non-inclusive educational settings range from special schools, through special classes/units and various forms of ability grouping, to individual instruction.*

3. *The 'where to learn debate' has been interrogated on ideological, philosophical and empirical grounds.*

4. *According to OECD data, the percentages of SWSEN in non-inclusive settings range from several countries with less than 1% to several with 4-6%.*

5. *There is evidence that the population of special schools is undergoing change. For example, recent data from England shows a gradual increase in the number and percentages of SWSEN attending special schools as having behavioural, emotional and social difficulties and autistic spectrum disorders.*

6. *Many countries are developing new roles for special schools by converting them into resource centres with a range of functions replacing direct, full-time teaching of SWSEN.*

7. *Paradoxically, individual instruction has a low impact on student achievement, suggesting that the social context of the classroom is an important contributor to learning.*

8. *Special units or special classes yield mixed results, with some evidence from Sweden showing day special schools improved students' mental health, but other research indicating special class placements can lead to marginalisation and not to the learning of coping strategies. In England and Wales, pupil referral units vary in quality but the best of them have such features in common as strong, authoritative leaders; responsiveness to behaviour problems that develop in schools; capacity to help students with emotional and behavioural difficulties while at the same time helping them academically; a shared purpose and direction; and a well-designed curriculum.*

9. *Residential schools have been little researched. Limited evidence points to very small effects on behaviour after the students leave residential facilities. On the positive side, some studies point to residential schools having restorative value, offering respite from negative influences, and providing opportunities for resignification. Follow-up studies are quite discouraging.*

10. *Despite the lack of evidence for the beneficial effects of non-inclusive placements on learning, many parents and teachers strongly support a continuum of services that includes special schools and units.*

11. *Research into ability grouping shows that, overall, it has little or no significant impact on student achievement, although high-achieving students appear to benefit more than low-achieving students, who suffer from disadvantages in being placed in low ability groups.*

12. *A fitting conclusion would be that the continuation of non-inclusive educational settings should be based on the extent to which they improve student learning outcomes in ways valued by the students, parents, and teachers. Data and evidence, not conviction and ideology, should be the key considerations.*

Chapter Eighteen: Teacher Education

1. *Teacher education in the field of SWSEN involves consideration of four main areas:*
    a. *The nature of initial teacher education (ITE) for general education teachers and special education teachers.*
    b. *Specialist qualifications for professionals working in an advisory or consultancy capacity.*
    c. *The training of paraprofessionals.*
    d. *Professional development for professionals working with SWNEN*
2. *There is considerable variability with respect to all of these issues between and even within countries.*
3. *Many countries are adapting their teacher education programmes to take account of the recent emphasis on inclusive education.*
4. *Many jurisdictions are prescribing in considerable detail what is expected of various training programmes.*
5. *In England and Wales, a three-level model of teacher education is being implemented. This involves developing the following:*
    a. *Core skills for ALL teachers in ALL schools*
    b. *Specialist skills in SOME local schools*
    c. *Advanced skills for SOME teachers in ALL schools*
6. *In the US, there is debate over categorical vs non-categorical licensure and the extent to which special and general teacher education should and can be merged.*
7. *In the US, the 2002 President's Commission was highly critical of colleges of education for not ensuring that their curricula and methodologies were empirically connected to improving student achievement and, accordingly, recommended sweeping reforms in teacher education.*
8. *Educators should acquire a set of values, knowledge and skills before and during their professional careers if they are to be successful in their work with SWSEN. Twent-four such values, knowledge and skills should be developed at three levels – basic, intermediate and advanced - for various groups involved in education.*

Chapter Nineteen: Collaboration

1. *Educating SWSEN requires collaboration among many people – several professionals and parents in particular.*

2. *Collaborative approaches to educating SWSEN are increasingly becoming embedded in education systems around the world. This is well illustrated in the sources of support for regular class teachers in their work with SWSEN in 23 European countries, which included school-based specialists, community-based agencies and special schools.*

3. *Successful collaboration depends on such factors as establishing clear goals, defining respective roles, adopting a problem-solving approach and establishing mutual trust and respect.*

4. *Co-teaching occurs in inclusive education settings when a general education teacher and a special education teacher combine their expertise to meet the needs of all learners in the class.*

5. *Paraprofessionals are generally inadequately appreciated, compensated, oriented, trained, supervised, and researched. Since 2001, paraprofessionals in the US have had more defined job descriptions and are expected to have a college level qualification.*

6. *Teachers need to be trained to manage paraprofessionals and to ensure that SWSEN have quality time with teachers and the general curriculum.*

7. *Various countries have developed cadres of professionals to act as advisers/consultants to teachers of SWSEN, providing advice and guidance to the general classroom teacher on the programme to be followed.*

8. *In many countries, educational psychologists are considered to play a vital role, not only in the education of SWSEN, but also in education more generally and in community contexts.*

9. *A feature of leading practice throughout the world is a move towards 'integrated support', 'service integration' or 'wraparound services', all of which are concerned with the delivery of specialised services in a more coordinated and integrated manner. Such coordination can take place at an institutional level, at an agency level, or at a government level.*

Chapter Twenty: Full-service schools

1. *The traditional borders between schools and their communities are undergoing dramatic change.*

2. *Full-service schools (FSSs) hold out considerable promise for coordinating services for SWSEN and their families.*

3. *FSSs are 'one-stop' institutions that integrates education, medical, social and/or human services to meet the needs of children and youth and their families in a school's campus.*

4. *FSSs vary in character according to the nature of the communities they serve and the availability and commitment of various agencies.*

5. *FSSs include the following features: (a) a focus on all the needs of all pupils at the school; (b) engagement with families;(c) engagement with the wider community; (d) integrated provision of school education, informal as well as formal education, social work and health education and promotion services;(e) integrated management;(f) the delivery of services according to a set of integrated objectives and measurable outcomes;and (g) multi-disciplinary training and staff development.*

6. *There are examples of FSSs in countries such as Canada, England and Wales, and Scotland.*

7. *Studies have reported positive results for FSSs, including impacting positively on students' attainments, particularly in the case of those facing difficulties; positive outcomes for families and local people particularly where they were facing difficulties; schools having better relations with local communities and enjoying enhanced standing in their communities; improved attendance rates; less drug abuse; and fewer teenage pregnancies.*

Chapter Twenty-one: Wraparound Services

1. *Increasingly, in the past two decades or so, there has been a distinct trend towards 'joined–up thinking' in providing human services.*

2. *This trend calls for radical, transforming systems change manifested in the move from fragmentation to coordinated or integrated intervention and from narrowly-focused and specialist-oriented, 'silo' services to comprehensive, general approaches.*

3. *Wraparound is a system-level intervention that quite literally aims to 'wrap' existing services around children and young people and their families to address their problems in an ecologically comprehensive and coordinated way. The strength of evidence that wraparound can positively affect child and adolescent outcomes is*

rather mixed, but trending in favour of wraparound, compared with more traditional approaches.

4. *In developing joined-up services for children and young persons with SWSEN, it is essential to see them as being embedded in various systems: their families, classrooms, schools and communities.*

5. *A general systems theory has the following features:*

     a. *a social system can be studied as a network of unique, interlocking relationships with discernible structural and communication patterns;*

     b. *all systems are subsystems of other, larger systems;*

     c. *boundaries of varying degrees of permeability give a social system its identity and focus as a system, distinguishing it from other social systems with which it may interact;*

     d. *there is an interdependency and mutual interaction between and among social systems;*

     e. *a change in any one member of the social system affects the nature of the social system as a whole;*

     f. *social systems vary in the extent to which they are purposive, goal-directed and in constant states of interchange with their environments;*

     g. *change within or from without a social system that moves the system to an imbalance in structure will result in an attempt by the system to re-establish that balance;*

     h. *systems may be open or closed, depending on the degree to which they engage in exchanges with their environment (both receiving inputs and delivering outputs);*

     i. *systems reach a 'steady state', or equilibrium, with respect to their exchanges with the environment.*

6. *Bronfenbrenner identified four levels of nested settings: the microsystem (the family or classroom), the mesosystem (two microsystems in interaction), the exosystem (external environments that indirectly influence development, e.g., parental workplace), and the macrosystem (the larger socio-cultural context, such as the individual's ethnicity, culture and belief systems).*

7. *The present review adapts Bronfenbrenner's model, drawing attention to: the child in the family, the child in the inclusive classroom, and the child in the whole school.*

Chapter Twenty-two: Parent Involvement

1. *Parents play important, if not critical, roles in educating and supporting their children's education.*

2. *Parents have been considered in almost every chapter of the current review.*

3. *Many countries have legislation and/or policies on parent involvement in the education of SWSEN, at a minimum their participation in major decisions affecting their children, such as their IEPs and decisions regarding placements.*

4. *Five different levels of parent involvement have been identified: (a) being informed, (b) taking part in activities, (c) participating in dialogue and exchange of views, (d) taking part in decision-making, and (e) having responsibility to act.*

5. *Parents of SWSEN often require support and guidance in managing their children's challenging behaviour. There is clear evidence that when this is provided both children and parents can benefit.*

6. *There is quite an extensive international literature on the efficacy of parental involvement in their children's education*

7. *Three parent training programmes stand out as having good outcomes: (a) behavioural parent training, (b) parent-child interaction therapy, and (c) Triple P-Positive Parenting Programme.*

Chapter Twenty-three: Universal Design for Learning

1. *Universal Design (UD) had its origins in architecture and engineering, and has been increasingly emphasised in education, where it is usually referred to as Universal Design for Learning (UDL).*

2. *UD may be defined as 'the design of products and environments to be usable by all people, to the greatest extent possible, without the need for subsequent adaptation or specialised design'.*

3. *UDL involves planning and delivering programmes with the needs of all students in mind from the outset. It applies to all facets of education: from curriculum, assessment and pedagogy to classroom and school design.*

4. *Three overarching principles guide UDL: (a) provide multiple means of representation, (b) provide multiple means of action and expression, and (c) provide multiple means of engagement.*

5. *More specifically, UDL requires that the following criteria be met (a) equitable use, (b) flexible use, (c) simple and intuitive use, (d) perceptible information, (e) tolerance for error, and (f) low physical and cognitive effort.*

Chapter Twenty-four: Data on students with special eductional needs

1. *Recent technological developments that have made it possible to acquire, combine, store, analyse, interpret and report information on individuals during any phase of data management and to make decisions based on such information.*

2. *Depending on the purposes to which data will be put, they should meet a range of criteria: right to privacy, right to control information about oneself, validity, reliability, completeness, relevance, timeliness, availability and comparability.*

3. *The nature of data and the assumptions underlying its gathering and use is one of the threads that runs through this review.*

4. *The World Health Organization's International Classification of Functioning, Disability and Health offers a tool for a paradigm shift from the purely medical model to an integrated biopsychosocial model of human functioning and disability.*

5. *Australia's programme of Nationally Consistent Data Collection on School Students with Disability is a nationally consistent model for collecting information about the support ('adjustments') provided to students with various disabilities.*

Chapter Twenty-five: Conclusions

1. *The education of SWSEN is a complex process with many inter-related elements, most of which apply to education in general and some of which are specific to SWSEN.*

2. *When considering the human rights of SWSEN, it is useful to distinguish between their 'positive claims rights' and their 'negative claims rights.' The former enjoins us to treat such students in a positive manner by, for example, providing appropriate education and health care, while the latter requires that we should do no harm to them.*

3. *Policies should take account of Rawls's 'difference principle', which permits divergence from strict equality so long as the inequalities in question would make the least advantaged in society materially better off than they would be under strict equality.*

4. *Neoliberalism, centring on the twin notions of reducing state involvement in education and exposing schools to the competitive forces of the free market, has disadvantages for SWSEN.*

5. *Funding models for SWSEN should be transparent, adequate, efficient, equitable, robust, and free from unintended consequences*

6. *Educational provisions for SWSEN should not be primarily designed to fit the student into existing systems, but rather, they should also lead to those systems being reformed so as to better accommodate diversity, i.e., education should fit the student.*

7. *Inclusive education goes far beyond the physical placement of SWSEN in general classrooms, but requires nothing less than transforming regular education by promoting positive school/classroom cultures and structures, together with evidence-based practices, and providing adequate support for teachers.*

8. *Transition programmes for SWSEN should provide them with the academic and social skills to enable them to become competitively employed and/or to continue their participation in education, to enhance their economic and social welfare, and to enjoy an enhanced quality of life through becoming as independent as possible.*

9. *SWSEN who spend time in well-designed, well-maintained classrooms that are comfortable, well lit, reasonably quiet, and properly ventilated with healthy air will learn more efficiently and enjoy their educational experiences.*

10. *Persons with disabilities have the same legal rights as all others in a society to have their needs taken fully into account in disasters and conflicts, while at the same time receiving additional support that takes account of their needs.*

11. *Research is increasingly confirming that neurological factors contribute to a range of disabilities, as a result of either significant or minimal central nervous system dysfunction. Neuroscience is giving us fruitful leads to follow, a situation that will undoubtedly improve in the future*

12. *New roles for special schools, including converting them into resource centres with a range of functions replacing direct, full-time teaching of SWSEN, should be explored*

13. *Educational policies and practices for SWSEN (indeed all students) should be evidence-driven and data-based, and focused on learning outcomes.*

14. *International trends in the education of SWSEN should be carefully studied and interpreted through the prism of local culture, values and politics to determine their relevance for any country.*

15. *Issues in the education of SWSEN should be comprehensively researched.*

16. *Determining valid and reliable ways for measuring learning outcomes for SWSEN should be given high priority.*

17. *All decisions relating to the education of SWSEN should lead to a high standard of education for such students, as reflected in improved educational outcomes and the best possible quality of life, for example as outlined in the UK's Every Child Matters outcomes for children and young people.*

18. *The rights of SWSEN to a quality education and to be treated with respect and dignity should be honoured.*

19. *National curricula and assessment regimes should be accessible to SWSEN, taking account of the principles of universal design for learning.*

20. *Educational provisions for SWSEN should emphasise prevention and early intervention prior to referral for more costly special educational services, through such processes as response to intervention and graduated response to intervention.*

21. *All educational policies should be examined to ensure that any unintended, undesirable consequences for SWSEN are identified and ameliorated.*

22. *Any disproportionality in groups represented in special education, especially ethnic minorities and males, should be carefully monitored and ameliorated where appropriate.*

23. *Partnerships with parents/caregivers of SWSEN should be seen as an essential component of education for such students.*

24. *Inter-agency collaboration involving wraparound integration of services for SWSEN, and full-service schools, should be planned for and the respective professionals trained to function in such environments.*

25. *The roles of educational psychologists are going beyond the assessment and classification of SWSEN to incorporate broader pedagogical and systems-related activities, not only with such students, but also in education more generally and in community contexts.*

26. *Initial teacher education and ongoing professional development for teachers and other educational professionals should take account of the recent emphasis on inclusive education.*

27. *In order to improve the quality of education for SWSEN, leadership must be exercised throughout the education system, from legislators to school principals.*

28. *The education of SWSEN will increasingly be driven by data.*

29. *Finally, in order to give expression to the above conclusions, it is vital that countries develop comprehensive national policy documents on the care and education of SWSEN, with an emphasis on inclusion.*

CHAPTER ONE

INTRODUCTION

How best to educate students with special educational needs (hereafter referred to as SWSEN) is one of the most dominant and controversial issues confronting educators around the world today. It is a complex and dynamic issue that demands careful and systematic analysis. It requires that we examine such fundamental questions as: What is education? What are schools for? How best to teach diverse learners in inclusive settings? How should they be assessed? How should they be classified; indeed, should they be classified at all? How important is the place in which they are educated? What choices should their parents have? What supports do they require? How should they be funded? What does neuroscience tell us about the development and education of SWSEN? How can the agencies that are involved with their education, health and welfare be coordinated? Some of these questions are common to general education, but some are specific to the education of students with special educational needs. In many respects, special education is a microcosm of education more generally and, indeed, of society as a whole. How we address issues to do with SWSEN provides us with significant leads as to how similar issues can or should be addressed in the broader contexts.

The purpose of the original review was to outline international trends in the education of SWSEN, with the aim of informing the New Zealand Ministry of Education's review of special education. That review did not include early childhood or post-school sectors, behaviour services or giftedness, as these fell outside the scope of the review of special education for which that review was intended to be a companion piece. Other topics not considered, because of time and space limitations, included the brain and learning, the quality of built environments, including the physical environments of classrooms, advances in understanding disabilities (especially ADHD, Dyslexia and ASD), the role of organisations representing persons with disabilities, full service schools, NGOs and ICT. Some of these were mentioned in the context of other topics, but it was noted that they deserved lengthier consideration.

The present review is intended to update and extend the original review. It was undertaken under a commission from the Victorian State Department of Education, as

part of the Program for Students with Disabilities Review, which had the following terms of reference:

The Department will undertake a review of the *Program for Students with Disabilities (PSD)*. The review will provide advice and recommendations for reform against agreed criteria related to:

1. *The current PSD's ability to meet the needs and maximise the learning of all children and young people with a disability in Government Schools.*

2. *The future capacity of the Government school education system, including the role of the PSD, to meet the specific needs of students with autism and dyslexia.*

3. *The feasibility of shifting to a strength-based, functional needs assessment approach for students with a disability, which is consistent with the directions of the National Disability Insurance Scheme (NDIS).*

4. *The efficacy of the current Year 6/7 PSD review process, its purpose, timing, requirements and influence on students' transition from primary to secondary school and from that assessment, recommendations of alternative models.*

5. *The program's capacity to support the Government's commitment to excellence in inclusive education, including an assessment of accountabilities.*

6. *Advice on the operationalising the recommendations of the review, including transition implications.*

The following principles will guide the review:

- *the school education system should be inclusive for all children with a disability;*

- *the school education system should maximise learning of all children with a disability through high-quality instruction;*

- *the school education provision for, or service delivery to, students with disabilities will draw on contemporary evidence-based practice;*

- *the approach to supporting students with disabilities should be family-friendly, holistic, seamless, and align (where possible) with the national disability reform agenda;*

- *the approach to supporting students with disabilities should assist schools to meet their legal obligations to all students, staff and visitors to the school.*

The present edition updates the literature that was originally reviewed and, in addition, includes the following topics: philosophical underpinnings; transition from school to post-school education and work; disability, conflicts and crises; full-service schools; wraparound services; the built environment; developments in neuroscience; and data on students' special educational needs.

1.1 Issues to be Explored in this Review

This review will outline some of the principal issues in the education of students with special educational needs, with particular reference to UK, the US, Australia, New Zealand, Canada, and countries in continental Europe. The topics that will be covered are as follows:

1. *Philosophical underpinnings**
2. *Paradigms of special educational needs*
3. *Definitions, categorisation and terminology*
4. *Disproportionality in special education*
5. *Developments in neuroscience**
6. *Response to intervention and graduated response*
7. *Educational contexts*
8. *Funding and resourcing*
9. *Curriculum*
10. *Assessment*
11. *Evidence-based pedagogy*
12. *Inclusive education*
13. *Transition from school to post-school education and work**
14. *The built environment**
15. *Disabilities, conflicts and crises**
16. *Non-inclusive educational settings*
17. *Teacher education*
18. *Collaboration*
19. *Full-service schools**
20. *Wraparound services**
21. *Parent involvement*
22. *Universal design for learning*
23. *Data on students with special educational needs**

* New to this edition.

1.2   Sources of Information

This review will draw heavily on the writer's earlier publications (Mitchell, 1999; 2004 a, b, c, d; 2005; 2008; 2012; 2013; 2014a; 2014b; 2014c; 2015 a, b; Mitchell and Karr, 2014; and Mitchell et al., 2010). Other significant sources include literature reviews carried out by Riddell et al. (2006), Shaddock et al. (2009) and Kauffman & Hallahan (2011); reviews carried out by the Organisation for Economic and Cooperative Development (OECD, 1999, 2003, 2007), the European Agency for Development in Special Needs Education (EADSNE) (2003, 2009, 2013), and the influential President's Commission on Excellence in Special Education in the US (2002). As well, various reports, journal articles, books and Internet sites will be referred to when relevant.

1.3   A Note on Nomenclature

As we shall see in Chapter Four, there is no universal agreement as to how students with special educational needs should be referred to, how they should be defined and what, if any, categories they should be divided into. However, for the purposes of this review, the term 'students with special educational needs' (SWSEN) will generally be employed.

Given that the term 'special education' historically, and even contemporaneously, has been widely interpreted to refer solely or mainly to special schools and special classes, with an emphasis on students with disabilities, it will be used sparingly in this review, except where the context determines otherwise. Rather, the broader term 'education of SWSEN' will be preferred as it covers both a broader group of students and a greater range of educational provision.

Finally, a note on the title of this review: Education that Fits. This was chosen because the writer believes that it draws attention to the importance of education systems adapting to SWSEN, and, conversely, it draws attention away from the notion of fitting students to existing education systems. It also draws attention to the importance of determining learning outcomes for such students, the curriculum and pedagogy that contribute to the desired outcomes, and the means of determining whether or not they have been achieved. As we shall see in the present review, decisions being made in all of these areas are increasingly evidence-based and data-driven.

1.4   Transfer of Ideas Across Countries

Before exploring specific issues, it is relevant to consider why developments in special and inclusive education, indeed education more broadly, show similar trajectories across countries, especially those in the developed western world.

Recent years have seen what McNeely & Cha (1994) referred to as a remarkable degree of convergence in both educational ideology and educational structures across all types of nation states. This phenomenon has also been noted by writers such as Adick (1992) and Meyer et al. (1992) who observed that 'modern' schooling systems have already spread throughout the world at the expense of 'autochthonous' systems. According to Adick (1992), the modern form has in common features such as:

- a more or less differentiated school system with sub-divisions into school classes, levels and graduation qualifications;
- teaching according to a pre-arranged curriculum;
- a systematic differentiation between teaching and learning, so that a professional staff of teachers appears before a class of school children at scheduled time intervals;
- a state controlled, public, legal regulation of educational practices in schools; etc.

To a large extent, this convergence of educational policies and practices reflects the trend towards nation-states becoming increasingly subject to world-level ideological prescriptions and practices, as mediated by such agencies as the UN and the OECD. Such agencies exercise considerable authority, according to McNeely & Cha (1994), influencing national systems through a number of normative and rule-creating activities - four in particular. Firstly, international organisations act as a major forum for the transnational exchange of ideas and information via their publications, through the provision of consultants, and by sponsoring various types of conferences, meetings, and workshops. Secondly, in order to become members of these international organisations, countries have to sign up to their charters and constitutions, which typically contain professions of adherence to global principles, norms, and procedures. A third and related means of bringing about international convergence can be found in standard-setting instruments such as declarations and recommendations (for example, the United Nations *Convention on the Rights of*

Persons with Disabilities). Although these may not be legally binding, 'they may be both inspirational and educational'. Finally, and in some circumstance perhaps most importantly (e.g., in developing countries), international organisations exert their influence through direct financial assistance or through the provision of development experts, both of which are usually linked to the adoption of certain ideas and policies.

Certainly, the UN agencies do aspire to influence global values. For example, the *World Commission on Culture and Development* (1995) identified 'recurrent themes that appear in nearly all cultural traditions', and went on to argue that these could 'serve as an inspiration for a global ethics' (p.36). Five such principles are adduced: human rights and responsibilities, democracy and the elements of civil society, the protection of minorities, commitment to peaceful conflict resolution and fair negotiation, and equity within and between generations. With a more specifically educational focus, the report of the *International Commission on Education for the Twenty-first Century* (UNESCO, 1996) put forward the notion that quality education should have four pillars:

- *learning to know*: broad general education and in-depth work on selected subjects, learning to learn to continue education through life;
- *learning to do:* ability to face a variety of situations, often unforeseen; to work in teams - hence work experience incorporated with education;
- *learning to be:* exercising independence and judgment, combined with sense of personal responsibility for attaining common goals; understanding and realising one's talents: memory, reasoning, imagination, aesthetic sense, physical, leadership;
- *learning to live together:* among individuals, groups, nations; developing an understanding of others and their history, traditions and spirituality (pp.7-8).

Of these pillars, the fourth is given priority. In the words of the Commission,

> the far-reaching changes the traditional patterns of human existence require of us a better understanding of other people and the world at large. There is a need for mutual understanding, peaceful interchange and, indeed, harmony - the very things that are most lacking in our world today (p.7).

More specifically, the writer has elsewhere analysed the ways in which beliefs, principles, knowledge and practices relating to special education are transferred between countries, resulting in what he considers to be a remarkable degree of convergence, both in ideology and in practices, across all types of nations (Mitchell,

1999). Broadly, there are four main sources of influence: international conventions, the dissemination of influential legislation, especially from the US and the UK, the research literature and, more recently, the Internet. The first two of these influences will be outlined below.

International conventions and agreements. International bodies such as the UN have actively promoted the rights of persons with disabilities and the principles of inclusion. For example, The Declaration of the Rights of Disabled Persons, adopted by the UN General Assembly in 1975, stands out as an early landmark in the international context (United Nations, 1975). Its 13-point proclamation has influenced many countries in their formulation of policies for persons with disabilities, including special education policies. *Inter alia*, the Declaration asserts that disabled persons have the right to respect for their human dignity, to measures designed to enable them to become as self-reliant as possible, and to a range of services, including education, which will enable them to develop their skills. Most recently, in 2006, the UN General Assembly confirmed a Convention on the Rights of Disabled Persons, which included a significant commitment to inclusive education. [1]

With regard to the education of SWSEN, the 1994 *Salamanca Declaration* was even more specific. At a 1994 conference held in Salamanca, Spain, and sponsored by UNESCO, representatives of 92 governments and 25 international organisations proclaimed that every child has a fundamental right to education and has unique characteristics, interests, abilities and learning needs which should be taken into account by child-centred education systems (UNESCO, 1994).

More recently, the thrust of the *Salamanca Declaration* was reiterated and expanded at the meeting at the forty-eighth session of the UNESCO *International Conference on Education*, held in Geneva in 2008. This conference was attended by Ministers of Education, heads of delegation and delegates from 153 Member States, along with representatives of 20 intergovernmental organisations, 25 NGOs, foundations and other institutions of civil society. At the conclusion of their work, participants recalled Article 26 of the United Nations Declaration of Human Rights that states that everyone has a right to education and affirmed that inclusive quality education is fundamental to achieving human, social and economic development.

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[1] Australia and New Zealand both ratified this Convention in 2008.

Importantly for the current review, it was recommended that States should recognise the importance of a broadened concept of inclusive education that addresses the diverse needs of all learners and that is relevant, equitable and effective. Member States were called upon to adopt an inclusive education approach in the design, implementation, monitoring and assessment of educational policies as a way of contributing to building more inclusive societies (UNESCO. 2009). Currently, Nation States' responsibilities to SWSEN are being influenced by the United Nations *Convention on the Rights of Persons with Disabilities* (United Nations, 2008).

      Influential legislation and policy documents. Given that the US and the UK have played, and are playing, dominant roles in influencing worldwide provisions for SWSEN, it is relevant to outline some of the important developments in these jurisdictions. As noted by Mitchell (1999), the US *Public Law 94-142* of 1975 and its successors, the *Individuals with Disabilities Education Act* of 1997 and the *No Child Left Behind Act* of 2002, have played influential roles in promulgating the principles of inclusive education worldwide and other matters to do with such themes as all students having access to the general curriculum and to their country's or state's assessment regimes.

      A related influential document from the US is the report of the *President's Commission on Excellence in Special Education* (2002). In the preamble to its report, the Commission noted that young people with disabilities drop out of high school at twice the rate of their peers; that most public school educators do not feel well prepared to work with students with disabilities; that of the 6 million students in special education, half are identified as having a 'specific learning problem', mostly because they have not learned how to read; and students of minority status are over-represented in some categories of special education. The Commission brought down nine major findings, including the following: (1) the implementation of the Individuals with Disabilities Education Act (IDEA) is overly bureaucratised; (2) too little emphasis is placed on prevention, early identification, and aggressive intervention using research-based approaches; (3) general and special education are seen as separate systems; (4) many of the current methods of identifying students with disabilities lack validity; and (5) research in special education needs to be more rigorous, the current system not always implementing evidence-based practice. These major findings led to a wide range of recommendations, with three underlying

themes: focus on results - not on process, embrace a model of prevention not a model of failure, and consider children with disabilities as general education children first.

In the UK, the landmark event was the 1978 report of the *Committee of Enquiry into the Education of Handicapped Children and Young People* (the Warnock Report). Lady Warnock (1991) has recounted some of the features of that Committee's recommendations and the background to them. She noted, for example, the significance of the early 1970s transfer of responsibility for the hitherto designated 'ineducable' severely handicapped from the Department of Health to the Department of Education and Science. This led directly to the setting up of the Committee of Enquiry. Among the Committee's central tenets were the beliefs that every person had the right to education; that the goals of education should be independence, the ability to do useful work and the ability to enjoy life; that the concept of 'special needs' should replace diagnostic categories; and that while 2% of children had ongoing significant special needs, as many as 20% had less significant special needs which still required special help. The committee saw equality as equality of entitlement, not identity of provision. Writing some 13 years after presenting the report, however, Warnock painted a bleak picture of progress in the achievement of this notion of equality, blaming the then financial crisis and the new ideal in education, that of cost-effectiveness.

Mittler (2002) reviewed some of the significant developments in the education of students with intellectual disabilities that had taken place in England since responsibility for their education passed from health to education authorities. These included the shift from a categorical to a non-categorical, needs-based approach to teaching; a greater emphasis on changing the environment rather than the child; a shift from exclusion to inclusion (although the majority of children with intellectual disabilities remained in some form of segregated provisions, with considerable variations between local education authorities); and developments in making the National Curriculum and its assessment more accessible to SWSEN.

Also of significance outside as well as inside the UK has been the *Special Educational Needs and Disability Act of 2001* and the related policy document the *Special Educational Needs Code of Practice*. The latter replaced an earlier *Code of Practice* issued in 1994. These Codes are intended to provide paractical advice to schools and local authorities on 'carrying out their statutory duties to identify, assess

and make provision for children's special educational needs' (Department for Education and Skills, 2001, p.iii).

Finally, it must be recognised that while countries can learn much from other countries, the transfer of knowledge, beliefs and experiences raises the cultural propriety of making such transfers. Mitchell (1999) noted that the challenge to both exporters and importers of philosophies and practices is to determine how far indigenous philosophies, ideologies and practices should be encouraged, respected, challenged, overthrown, or blended with those from 'outside'.

1.5   Summary

1. *The purpose of this review is to outline international trends in the education of students with special educational needs, with the aim of informing the Victorian Department of Education's Program for Students with Disabilities Review.*

2. *This review examines 24 issues, ranging from paradigms of special educational needs through the administration of special education, to school and classroom policies and practices.*

3. *Throughout the review, the term 'students with special educational needs' (abbreviated as SWSEN) will generally be employed.*

4. *Developments in special and inclusive education show similar trajectories across countries, especially those in the developed western world.*

5. *Broadly, there are four main sources of convergence of policies and practices: international conventions, the dissemination of influential legislation especially from the US and UK, the research literature and, more recently, the Internet.*

6. *In many ways, special education is a microcosm of education more generally and, indeed, of society as a whole.*

CHAPTER TWO

PHILOSOPHICAL UNDERPINNINGS[1]

It is important that any review of the education of SWSEN be premised on underlying philosophies. This means giving consideration to two principal issues: why diversity should be valued and theories of distributive justice.

2.1 Why we should value diversity and respect human rights

At a biological level, Charles Darwin saw in the diversity of species the principles of evolution that operated to generate the species. This occurs through genetic diversity serving as a way for populations to adapt to changing environments. With more variation, it is more likely that some individuals will possess genes that are suited to particular environments if they come under stress. Such individuals are more likely to survive to produce offspring bearing those genes. This is what has occurred as modern humans evolved in Africa and spread across the world, adapting locally to the selective pressures of the climates, food sources and pathogens that they encountered.

At a social level, there is an instrumental argument for valuing diversity. If societies in general and schools in particular value diversity, this can bring about several desirable outcomes. These include: (a) enhancing social development by expanding the pool of people with whom individuals can associate and develop relationships; (b) preparing students for future career success by becoming sensitive to human differences and able to relate to people of different abilities, nationalities and cultural backgrounds, both locally and globally; (c) increasing individuals' knowledge base and creative thinking by interacting with a diverse group of people; (d) enhancing self-awareness by students comparing and contrasting their life experiences with others who differ sharply. Respect for diversity includes knowing how to relate to those qualities and conditions that are different from our own and outside the groups to which we belong, yet are present in other individuals and groups (Hyman and Jacobs, 2009). This is the challenge facing educators at all levels of the education system in all countries.

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[1] This chapter draws upon material to be published in Mitchell (in preparation).

Morally, there is a strong argument for valuing diversity, arising from the doctrine of human rights (Fagan, 2014). In a nutshell, this doctrine aims at identifying the fundamental prerequisites for each human being to lead a minimally good life and to enjoy the full rights of citizenship. It rests upon belief in the existence of a truly universal moral community comprising all human beings. Within Europe, the origins of moral universalism as a basis for human rights are typically associated with the writings of Aristotle. The contemporary idea of human rights most clearly emerged during the 17th and 18th centuries with the so-called 'doctrine of natural law' in which it is argued that individuals possess rights independently of society or polity. The 17th century philosopher, John Locke, argued that natural rights flowed from natural law, which originated from God. However, the 18th Century German philosopher, Immanuel Kant, argued that an appeal to the authority of some super-human entity was not necessary in justifying human beings' claims to certain, fundamental rights. Instead, he argued for the ideal of a potentially universal community of rational individuals autonomously determining the moral principles for securing rights. For him, the basis of moral reasoning must rest upon a condition to which all rational individuals are bound to assent. A related position on human rights argues that each individual owes a basic and general duty to respect the rights of every other individual because, by doing so, one's individual self-interest is furthered. From this perspective, individuals accept and comply with human rights because this is the best means for protecting one's interests against actions and omissions that might endanger themselves.

When considering human rights, it is useful to distinguish between 'positive claims rights' and 'negative claims rights' (Houlgate, 1980). The former enjoins us to treat individuals in a positive manner by, for example, providing medical treatment in the case of illness or injury and providing appropriate education, irrespective of an individual's degree of disability. The latter evokes the second part of the Hippocratic Oath, namely that 'I will use treatments for the benefit of the ill in accordance with my ability and my judgment, but from what is to their harm and injustice I will keep them.' In other words, the guiding principle of negative claims rights is that we should do no harm to people who are different.

Another distinction can be made between 'absolute rights' and 'conditional rights'. Elsewhere, the writer discussed this distinction with respect to providing

medical treatment for seriously ill persons with disabilities (Mitchell, 1985). He noted that although one of the fundamental moral and legal principles held by western societies is that human life has a value that exceeds all other considerations (i.e., an absolute right), there are exceptions, for example, killing in self defence and sacrificing one's life to save the lives of others (i.e., a conditional right). The sanctity of life position has been justified from several perspectives. A theistic view argues that since all humans are created in God's image, or that since all humans are God's property, or that since life is the gift of God, it would be contrary to divine will to take our own or someone's life. As noted above, this would be the position of John Locke. In contrast, a Kantian view would have us believe that, from a natural law perspective, comes the obligation that, quite apart from any religious consideration, the duty to respect life rises from human beings' natural ends as substances. This view was argued by Thomas Aquinas, the 13th century Italian philosopher and theologian and, more recently, by the 20th century French philosopher, Jacques Maritain, who held that, according to natural law, when a thing is looked at in terms of 'the normality of its functioning', it 'should achieve fullness of being either in its growth or in its behaviour' (Maritain 1951). While issues to do with capital punishment and warfare will not be considered in this review, the distinction between absolute and conditional rights is worth bearing in mind when we come to consider the individuals whose behaviours may jeopardise the welfare and rights of others.

2.2 Theories of distributive justice

Consideration of society's responsibilities towards SWSEN must be predicated on the broad concept of human rights (see Fagan, 2014; Sandel, 2009; Wenar, 2011). These rights inform us as to what we may, must, and must not do to others and what we may expect of others in their behaviours towards us.

In understanding the basis of human rights, we must consider arguments about which economic framework and which resulting distribution of wealth is morally preferable. Deciding on the principles of 'distributive justice' that should apply is extremely significant for determining how societies respond to differences among its citizens, particularly how they behave towards those who are disadvantaged – and especially towards SWSEN.

Various notions of distributive justice have been advanced. This issue is a complex one to explore, involving the intersection of philosophy and economics.

Nevertheless, it is one that underpins our approach to the education of people who are different, not least SWSEN, and must be addressed. The following is but a brief summary of the five main approaches to distributive justice.

Strict egalitarianism. This is perhaps the simplest idea of distributive justice. It calls for the allocation of equal material goods to all members of society, on the grounds that people are morally equal. As noted by Harvard philosopher Michael Sandel (2009), Kurt Vonnegut portrayed an extreme interpretation of this principle in his short story, *Harrison Bergeron.* In the year 2081, goes the story, 'everybody was finally equal…Nobody was smarter than anybody else. Nobody was better looking than anybody else. Nobody was stronger and quicker than anybody else.' To enforce this equality, a 'United States Handicapper General' had wide powers to handicap individuals who did not conform to reduce them to the desired norm.

Two matters need to be resolved in egalitarianism: how to index any distribution and the time frame for any distribution. Using money is the most common way of indexing distributive principles. The time frame problem cannot be solved as simply. One version requires that all people should have the same wealth at some initial point, after which they would be free to use it in whatever way they choose, with the consequence that future outcomes are bound to be unequal. The most common form of strict equality principle specifies that *income* should be equal in *successive* time-frames, though even this may lead to significant disparities in wealth if variations in savings are permitted. It is not surprising, perhaps, that the strict egalitarian principle of distributive justice has been criticised as being untenable and that it conflicts, for example, with what people might deserve and their freedom rights (see below). Partly as an attempt to avoid some of the pitfalls of strict egalitarianism, some economists design distributive principles that are sensitive to considerations of responsibility and luck in economic life; unsurprisingly, this approach is known as luck egalitarianism.

Although it is superficially attractive, strict egalitarianism is not advanced as the moral basis for educating SWSEN. It is recognised, however, that the current trend in many countries to significantly move away from the principles of egalitarianism carries risks for SWSEN.

Libertarianism. This approach centres on the moral demands of liberty or self-ownership. Advocates of such *libertarian* principles argue for unrestricted markets

and limited government regulation or interference, not in pursuit of economc efficiency, but in the name of human freedom. We have a right to do whatever we want with what we own (including our own bodies, our own self), provided we respect the rights of others to do the same. Just distribution of wealth arises in the free exchange of goods and services in an unfettered market. Persons should not be required to ensure the welfare of others for this would violate their right of self-ownership. Libertarians such as Robert Nozick (1974), thus believe in a minimal state, which is restricted to enforcing contracts, protecting private property and keeping the peace. Consequently, they reject any interference by the state to achieve any egalitarian redistribution of wealth, as outlined above. This view was promulgated, for example, by Milton Friedman (1962), the American economist. However, Nozick does concede that if it can be shown that one's advantages have been derived from past injustices (e.g., through the enslavement of others or the illegal confiscation of property), then some redistribution of one's wealth is acceptable. As well, libertarians reject paternalism (e.g., requiring people in vehicles to wear seatbelts or cyclists to wear helmets) and morals legislation (e.g., laws controlling prostitution).

Libertarianism, some believe, is part of the problem, not the solution, in addressing the needs of SWSEN. Neoliberalism, with its emphasis upon individualism, managerialism, and competition within education, is not a strong philosophical basis for achieving equity for SWSEN (see Chapter Eight, section 8.1 for an elaboration of this point).

Utilitarianism. Classical utilitarianism's two most influential contributors are Jeremy Bentham, an 18th/19th century British philosopher and social reformer, and, later, John Stuart Mill, another 19th century British philosopher. The doctrine they promulgated was that actions are right if they are useful or for the benefit of a majority. In other words, actions are to be judged according to their consequences (hence, utilitarianism is sometimes referred to as *consequentialism*). Only those actions that maximise utility (i.e., produce pleasure or happiness and prevent pain or suffering) are deemed to be morally right. Further, the greatest happiness of the greatest number of people should guide our conduct. This principle has led to utilitarianism being described as a welfare-based credo since distributive justice rests on determining what will maximise the welfare, or the collective happiness, of society

as a whole. To quote Bentham (1776), 'it is the greatest happiness of the greatest number that is the measure of right and wrong'.

In subsequent revisions of Bentham's theory by John Stuart Mill (1859), he mounted the classic defense of individual freedom, arguing that people should be free to do whatever they wanted, provided they did no harm to others. As he wrote, 'Independence is, of right, absolute. Over himself, over his own body and mind, the individual is sovereign'. Mill couches this notion in utilitarian terms, arguing that, over time, respecting individual liberty will lead to the greatest human happiness overall. For example, a dissenting view may turn out to be true and so offer some correction to the prevailing view.

At first glance, utilitarianism, applied to children with disabilities is inappropriate simply because they constitute a minority and are not part of the 'greatest number of people'. However, it could be argued that by allocating extra resources to such children and reducing the gaps described later in this review, the collective happiness of society as a whole could result. If equalisation policies succeed, we could well see improved educational, social and health outcomes – to the benefit of all members of society.

Kant's view of rationally determined moral principles. Immanuel Kant argued for the ideal of a potentially universal community of rational individuals autonomously determining the moral principles for securing rights. Michael Sandel (2009) describes Kant as providing 'one of the most powerful and influential accounts [of duties and rights] any philosopher has produced' (p.104) and that Kant's emphasis on human dignity 'informs present-day notions of universal human rights' (p.105).

Kant saw people as having three essential qualities. First, we are rational beings, capable of reason. Second, we are each of us, worthy of dignity and respect. Third, we are autonomous beings, capable of acting freely. Together, these features set us apart from a mere animal existence.

For Kant, the basis of moral reasoning must rest upon a condition to which all rational individuals are bound to assent. He believed that we can arrive at such principles of morality through 'pure practical reason' and through acting autonomously. This means acting according to laws we give ourselves, not according to the dictates of nature or social convention. When we act in this way, we do something for its own sake, as an end in itself, or, in the case of others, treating

persons as ends in themselves. As Michael Sandel expresses it: 'What matters is doing the right thing because it is right, not for some ulterior motive'. (p.111). This is Kant's 'motive of duty'. While it may also bring one pleasure, this should not be the prime motive for an action toward others. As Kant (1785, p.122) expressed it, 'Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end.' Moral law, he asserts, can rest neither on the interests and desires of individuals, nor on the interests or desires of a community. It can readily be seen how this principle underpins the modern-day concept of universal human rights and of our obligations towards those who are disadvantaged – including SWSEN.

Kant also referred to a 'universal law' which, briefly, refers to the principle that one should 'Act only on that maxim whereby you can at the same time will that it should become a universal law' (Sandel, 2009, p. 120). In a nutshell: what if everyone did or did not do something? This is a good test of whether one's actions put one's own interests ahead of everyone else's.

Rawls's difference principle. We turn now to a theory of distributive justice that is most pertinent to defining our obligations towards SWSEN. American philosopher, John Rawls (1971), suggested that we should determine principles of justice by choosing behind "a veil of ignorance", in which we imagine we don't know anything about who we are – whether we are rich or poor, what our gender or ethnicity is, and so on. He asserted that if no one knew any of those things, we would make choices from an original position of equality and the principles we would agree to would be just. Rawls claimed that this process would lead to two essential principles of justice. The first is that each person has equal basic rights and liberties, such as freedom of speech and religion. The second he referred to as the *difference principle*, in which he argued that divergence from strict equality is permitted so long as the inequalities in question would make the least advantaged in society materially better off than they would be under strict equality. If these two rules conflict in practice, however, Rawls argued that basic liberties should not be sacrificed in order to generate greater equality of opportunity or a higher level of material goods, even for the worst off.

Rawls was not opposed in principle to a system of strict equality *per se*, but nor was he arguing that he was seeking it; rather his concern was about the *absolute*

position of the least advantaged group rather than their *relative* position. Further, Rawls believed that it was possible to correct for the unequal distribution of talents without handicapping the talented, as in the case of Kurt Vonnegut's *Harrison Bergeron.* How to do this is rather controversial and, some would say, unrealistic. For example, he argued that gifts and talents should be allowed, even encouraged, to flourish, but the rewards accruing to those who possess them should belong to the community as a whole, with some redistribution to the least advantaged. As he stated: '*Those who have been favored by nature, whoever they are, may gain from their good fortune only on terms that improve the situation of those who have lost out.*'

Libertarians, of course, object to the difference principle on the grounds that it involves unacceptable infringements on liberty, property rights, or self-ownership. It is also criticised on the grounds that it ignores claims that people deserve certain economic benefits because of their hard work or contributions. Utilitarians object to it because it is does not maximise utility. And, finally, advocates of luck egalitarianism argue that the principle does not fully capture the moral roles they believe luck and responsibility should play in principles of distributive justice.

Overall, in his review of theories of justice, Sandel (2009, p.166) concluded that even when all criticisms have been taken into account, Rawls's theory 'represents the most compelling case for a more equal society that American political philosophy has yet produced.' It forms a substantial basis for determining our obligations towards children who are disadvantaged by their socio-economic or cultural background, or by their ability. It should drive our perception of what constitutes equity in education.

2.3   Summary

1. *Valuing diversity can bring about several desirable outcomes, including: (a) enhancing social development by expanding the pool of people with whom individuals can associate and develop relationships; (b) preparing students for future career success by becoming sensitive to human differences and able to relate to people of different abilities; (c) increasing individuals' knowledge base and creative thinking by interacting with a diverse group of people; (d) enhancing self-awareness by students comparing and contrasting their life experiences with others who may differ sharply.*

2. *Morally, there is a strong argument for valuing diversity, arising from the doctrine of human rights, which aims at identifying the fundamental*

prerequisites for each human being to lead a minimally good life and to enjoy the full rights of citizenship. It rests upon belief in the existence of a truly universal moral community comprising all human beings.

3. *A related position on human rights argues that each individual owes a basic and general duty to respect the rights of every other individual because, by doing so, one's individual self-interest is furthered. From this perspective, individuals accept and comply with human rights because this is the best means for protecting one's interests against actions and omissions that might endanger themselves.*

4. *When considering human rights, it is useful to distinguish between 'positive claims rights' and 'negative claims rights.' The former enjoins us to treat individuals in a positive manner by, for example, providing appropriate education, irrespective of an individual's degree of disability. The guiding principle in the latter is that we should do no harm to people who are different.*

5. *In understanding the basis of human rights, we must consider arguments about which economic framework and which resulting distribution of wealth is morally preferable. Deciding on the principles of 'distributive justice' that should apply is extremely significant for determining how societies respond to differences among its citizens, particularly how they behave towards those who are disadvantaged – and especially towards SWSEN. Consideration is given to five main approaches to distributive justice:*

    Strict egalitarianism calls for the allocation of equal material goods to all members of society, on the grounds that people are morally equal. This approach has been criticised as being untenable and that it conflicts, for example, with what people might deserve and their freedom rights.

    Libertarianism centres on the moral demands of liberty or self-ownership. Advocates argue for unrestricted markets and limited government regulation or interference in the name of human freedom. With its emphasis upon individualism, managerialism, and competition within education, it is not a strong philosophical basis for achieving equity for SWSEN.

Utilitarianism argues that actions are right if they are useful or for the benefit of a majority. Only those actions that maximise utility (i.e., produce pleasure or happiness and prevent pain or suffering) are deemed to be morally right. Further, the greatest happiness of the greatest number of people should guide our conduct.

Immanuel Kant argued for the ideal of a potentially universal community of rational individuals autonomously determining the moral principles for securing rights. His emphasis on human dignity and doing the right thing because it is right, not for some ulterior motive, informs present-day notions of universal human rights.

John Rawls put forward two essential principles of justice. The first is that each person has equal basic rights and liberties, such as freedom of speech and religion. The second he referred to as the 'difference principle', in which he argued that divergence from strict equality is permitted so long as the inequalities in question would make the least advantaged in society materially better off than they would be under strict equality.

CHAPTER THREE

PARADIGMS OF

SPECIAL EDUCATIONAL NEEDS

A paradigm is an ideology or frame of reference. It is the way one perceives, understands, or interprets a topic or issue. Individuals interpret (often unknowingly) everything they experience through paradigms, frequently without questioning their accuracy. People simply assume that the way they view things is the way things really are or the way things should be. Paradigms are so ingrained in culture that they seem "natural". They are a primary source of our attitudes and actions. (Baglieri & Shapiro, 2012, p.20)

Thomas Kuhn defines a paradigm as `universal achievements that for a time provide model problems and solutions to a community of practitioners' (Kuhn, 1962, p.10).

During its history, the broad field of special education has been the site of quite different paradigms which posit certain relationships between individuals with disabilities and their environments. This chapter will examine the three most dominant paradigms: the psycho-medical paradigm, the socio-political paradigm and the organisational paradigm.

3.1 Psycho-medical Paradigm

Until recently, special education has been dominated by a psycho-medical paradigm, which focuses on the assumption that deficits, or pathologies, are located within individual students (Clark et al., 1995). This paradigm may have grown out of the view that disability is a sign of the moral status of the person or as a sign of divine disfavour, with the remedy lying in salvation or redemption. Such a view existed in the past in many western societies and continues to exist among some people in developing countries.

Historically, the psycho-medical paradigm has been the most widespread and has been used in both the diagnosis and educational treatment of children with disabilities. As noted by Ackerman et al. (2002), in this model students receive a medical diagnosis based on their psychological and/or physical impairments across selected domains and both strengths and weakness are identified for education and

training. Those with similar diagnoses and functional levels are grouped together for instructional purposes.

This paradigm is problematic for several reasons. Christensen (1996) identified four. Firstly, it leads to the attribution of student failure to a defect or inadequacy within the individual, thus masking the role that highly constraining educational systems play in creating failure. Secondly, it wrongly suggests homogeneity within various diagnostic categories. Thirdly, many students enrolled in special education do not manifest demonstrable pathologies. Fourthly, instruction based on categories are of limited value.

With its emphasis on deficit theory, consideration of the psycho-medical paradigm, draws attention to such issues as 'disablism', 'racism' and 'classism'. In both cases, students are defined by their weaknesses rather than their strengths, without reference to systemic conditions that contribute, even cause, their condtions (Gorski, 2008). As well, the less powerful members are frequently stereotyped and discriminated against.

3.2   Socio-political Paradigm

In contrast to the psycho-medical paradigm, several writers regard disability as a socio-political construct, which draws attention to structural inequalities at the macro-social level being reproduced at the institutional level (Christensen, 1996; Clark, et al., 1995; Skidmore, 2002; Skrtic et al., 1996). Some writers are critical of this socio-political perspective, however, blaming it and its derivatives for what they consider to be an unscientific approach to special education (see Heward, 2003; Kauffman, 1999; Kavale & Mostert, 2003; and Sasso, 2001).

An interesting variant of the socio-political paradigm is a socio-cultural view presented by Danesco (1997) on the basis of her examination of international studies of parental beliefs about the nature and causation of childhood disabilities and about treatment and intervention. These studies revealed a commonly held duality of beliefs, with many parents in some cultures simultaneously holding both biomedical and socio-cultural views, the latter derived from magical, religious, supernatural, or metaphysical beliefs. Among the socio-cultural views is the belief espoused by cultural groups that adhere to the idea of reincarnation, where a disability is perceived as a condition affecting a present life but not necessarily the preceding or following lives. This duality of beliefs leads parents to pursue both formal biomedical help and

support from informal networks, including eliciting the help of folk healers, performing religious rituals and changing their own behaviours to atone for past transgressions. Danesco argued that professionals need to identify where their and parents' beliefs are convergent, divergent, or in conflict, and to develop strategies to deal with these circumstances.

Danesco's argument is echoed by Kalyanpur et al. (2000), who contended that the equity and advocacy expectations embedded in mandates for parent participation in special education decision-making processes may well be in conflict with the values held by many families from culturally diverse backgrounds. This is particularly so in the case of those who do not share beliefs in the primacy of participatory democracy, individual rights and freedom of choice. Instead of equity, some cultures may believe that inequality is a right and proper principle; instead of asserting individual rights, some cultures emphasise social obligations; instead of valuing choice, some cultures accept the primacy of ascribed roles. It is therefore incumbent on professionals that they develop an awareness of their own cultural and ethical values and understand that these may not be universally shared.

3.3 Organisational Paradigm

To these two paradigms, Clark et al. (1995) have added a third, an organisational paradigm, which they have identified in the writings of scholars such as Ainscow (1995) and Lipsky & Gartner (1999). In this newly-emerged paradigm, special education is seen as the consequence of inadequacies in mainstream schools and, consequently, ways should be found to make them more capable of responding to student diversity.

This perspective evokes the World Health Organization's (2001) distinction between 'impairment' and 'disability'. The former is usually taken to mean any loss or abnormality of psychological, physiological or anatomical structure or function. The latter refers to disadvantages or restrictions of activity caused by a society and its agencies which take little account of people who have impairments and thus excludes them from participation in the mainstream of social activities (i.e., the organisational paradigm). Or, as expressed by the National Institute on Disability and Rehabilitation Research, disability is a product of an interaction between characteristics (e.g., conditions or impairments, functional status, or personal and social qualities) of the individual and characteristics of the natural, built, cultural, and social environments.

In the organisational paradigm, then, disabilities are perceived as a function of the interaction between individual students and their physical, social and psychological environments. Instructional techniques and learning opportunities should therefore be structured to compensate for environmental deficiencies to ensure that children learn and achieve skills of adaptive living. This can be achieved through such means as schools implementing findings from research into effective teaching (see Chapter Twelve), operating as problem-solving organisations, and supporting teachers through the change process. Or, as Potok (2001) rather graphically expressed it, 'disability is the problem of the guys who design and build the steps, not the problem of the person in the wheelchair for not being able to walk' (p.65)

While recognising that their own work has largely been based on many of the assumptions of the organisational paradigm, Clark et al. have come to have some concerns with certain aspects of it. These include the difficulty in bringing about even minor changes in schools, given their 'actual complexity and messiness', and an apparently absolutist position lurking beneath the paradigm. While their own research shows that in individual schools it is possible to identify one of the three paradigms as being dominant (i.e., held by the powerful members of staff, especially principals), subordinate perspectives invariably co-exist among less powerful members of staff (i.e., teachers) and have to be taken into account by policy analysts.

3.4   Paradigm Shifts

While in most countries a mix of all three paradigms underlie their educational provisions for SWSEN, the preponderant one remains the psycho-medical model. It continues to retain its adherents even when other paradigms that place an emphasis on the environment have gained traction in recent years. It cannot yet be said that that the field has undergone a Kuhnian 'paradigm shift', in which traditional paradigms are discarded in favour of the new. The field of special education and its various players do not appear to be ready to make the shift away from the psycho-medical paradigm to a socio-political or organisational paradigm, just as there is continuing reluctance to make the shift away from segregated education paradigm to an inclusive education paradigm (see Chapter Thirteen). As Roach (2003) points out, paradigm shifts require what Argyris (1993) calls a move from 'single loop' learning to 'double loop' learning. In the former, changes occur only in surface behaviour, while in the latter there is deep conceptual change.

3.5   Summary

1. *A paradigm is an ideology or frame of reference. It is the way one perceives, understands, or interprets a topic or issue.*

2. *During its history, the broad field of special education has been the site of quite different paradigms, or models, which posit certain relationships between individuals with disabilities and their environments.*

3. *This chapter examined the three most dominant paradigms:*
    a. *the psycho-medical paradigm, which focuses on the assumption that deficits are located within individual students,*
    b. *the socio-political paradigm, which focuses on structural inequalities at the macro-social level being reproduced at the institutional level, and*
    c. *the organisational paradigm, in which special education is seen as the consequence of inadequacies in mainstream schools.*

4. *While most countries have a mix of paradigms underlying their educational provisions for SWSEN, the preponderant paradigm remains the psycho-medical model, which still retains its adherents even when other paradigms that place an emphasis on the environment have gained traction in recent years.*

5. *It cannot yet be said that that the field has undergone a Kuhnian 'paradigm shift', in which traditional paradigms are discarded in favour of the new.*

CHAPTER FOUR

DEFINITIONS, CATEGORISATION AND TERMINOLOGY

Given the diversity of paradigms outlined in the previous chapter, it is not surprising to find that making international comparisons of provisions for SWSEN is fraught with difficulties. As we shall see in this chapter, there is no universal agreement as to how this group of students should be referred to, how they should be defined and what, if any, categories they should be divided into. As well, these differences interact to determine differences in the structure and function of special education services and how they should be funded.

This diversity reflects a variety of factors, including different philosophical positions, such as those outlined in the previous chapter; the history of organisations/systems; local traditions within school districts; legal foundations; and fiscal policies and constraints (Weishaar & Borsa, 2001). It is further compounded by the recent UNESCO International Conference on Education resolution that Member States should adopt a broadened concept of inclusive education that addresses the diverse needs of all learners (UNESCO, 2009). In relation to the countries it covers, the European Agency for Development in Special Needs Education (EADSNE) commented on this diversity: '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, 2003, p.8).

This chapter will examine various definitions and classifications of SWSEN, discuss some problems with classification systems, and terminological issues.

4.1   Definitions and Classifications of SWSEN

In order to discuss policy differences and to gather comparable statistics, EADSNE and the OECD have sought to compare definitions across countries (EADSNE, 2000, 2003; OECD, 2000, 2005). As suggested above, they have found comparisons difficult, as the definitions vary even within nations (Australia and the UK being examples of this), as well as reflecting considerable variation across countries. Thus, for example, the category, special educational needs, is limited in some countries to students with disabilities, while in others it extends to social

disadvantage, those with minority ethnic backgrounds and even gifted children (Evans, 2003).

In order to deal with this diversity, the OECD obtained agreement across countries to re-allocate their national categories into three types, for the purpose of obtaining data for international comparisons:

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.

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.

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).

In its 2005 publication, OECD noted that most countries found it easiest to contribute data in relation to category A (disabilities), while many found it less easy to contribute data in relation to categories B (difficulties) and C (disadvantages).

In category A, the number of national sub-categories varied from two for England to 19 in Switzerland, with most countries having 12 or 13 sub-categories and nine sub-categories being found in virtually every country. These common categories comprised students who were blind or partially sighted, deaf or partially hearing, with emotional and behavioural difficulties, with physical disabilities, with speech and language problems, who were in hospital, with a combination of disabilities, with moderate or severe learning problems, and with specific learning difficulties. Certain countries cited IQ scores to define some categories (France, Greece, Italy, the Netherlands, Slovak Republic and Switzerland). Emotional and behavioural problems were not recognised as a separate category in Greece, Hungary, Italy or Turkey. Certain countries had a separate category for autism (Czech Republic, Germany, Poland, Slovak Republic, Turkey and the USA). Only Poland had a category for children who are in 'danger to addiction'.

The range between countries was 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%). Italy, Japan and Poland identified no categories within category B (difficulties) and Turkey only recognised 'gifted and talented' students in category B.

According to the OECD, countries differed the most in relation to category C. The most common categories across countries related to students whose first language was not that of their host country and/or who were immigrant, migrant or refugee children. Four countries (Belgium (Flemish Community), Germany, Mexico, and Spain) had a category that included 'Travelling children'. Only Belgium (the French Community) and Mexico specified rural areas or areas of small population (respectively). Few countries specifically mentioned socio-economic disadvantage (the exceptions included France, Mexico and the Netherlands). Few countries specifically included children who offend.

Some countries have taken a strong stance in relation to categorisation. Four warrant further description. Firstly, as noted by Riddell et al. (2006), Sweden has generally adopted an anti-categorisation approach to special educational needs and has opposed the use of medical categories for educational purposes. Given the reluctance to categorise children, psychometric assessment techniques have not been widely used. An exception to the Swedish anti-categorisation stance is the recognition of deaf or hearing impaired students as a separate group who may have the option of attending a special school for the deaf. Despite the dislike of categories, Hjorne & Saljo (2004) noted that there has been a marked increase in the identification of some types of impairment, in particular attention deficit/hyperactive disorder (ADHD). However, there is scepticism about the robustness of this category and identification techniques are seen as highly subjective and dependent on professional judgment.

Secondly, following the passage of the Education (Additional Support for Learning) (Scotland) Act 2004, the definition of additional support needs used in Scotland encompassed all children who have difficulty in learning for whatever reason (Riddell et al., 2006).

As noted by the OECD (2005), Denmark and England were two other countries not to take a categorical approach, although the former did make a distinction between more extensive special needs (about 1%) and those with less extensive needs, including those with disadvantages (about 12%). As Riddell et al.,

2006) have noted, whilst efforts have been made to abandon categorical approaches in England, the Statement of Need still included 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, ADHD and dyslexia. The OECD also noted that England had begun to collect data through categories, and the OECD's next set of statistics would contain such information. In fact, England does currently collect statistics on the following categories of SWSEN: specific learning difficulties (e.g., dyslexia, dyscalculia, dyspraxia); learning difficulty (moderate, severe, profound); behavioural, emotional and social difficulty; speech, language and communication needs; autistic spectrum disorder; visual impairment; hearing impairment; multi-sensory impairment; and physical disability (Department for Education and Skills, 2005).

Finally, given the influential role played by the US in international developments in special education, it is relevant to consider that country's approach to the classification of SWSEN. The first point to make is that under IDEA, the US legislation focuses on 13 disability categories. These fall into three major types:

1) Sensory disabilities such as visual impairments, hearing impairments, deaf-blindness;

2) Physical and neurological disabilities such as orthopedic impairments, other health impairments, traumatic brain injury, multiple disabilities, autism; and,

3) Developmental disabilities such as specific learning disabilities, speech and language impairments, emotional disturbance, mild mental retardation, and developmental delay.

In the US, the President's Commission on Excellence in Special Education (2002) was very critical of what it referred to as 'the proliferation of categories and assessment guidelines that vary in their implementation, often with little relation to intervention' (p.21). It pointed out that many of the 13 categories emerged as a result of advocacy groups' efforts to promote recognition for their specific constituencies and that 'the necessity of all 13 categories and their relation to instruction is not firmly established' (ibid,). The Commission's conclusion regarding categorisation in the US is worth noting in full:

The Commission could not identify firm practical or scientific reasons supporting the current classification of disabilities in IDEA. The intent of IDEA is to

focus on the effective and efficient delivery of special education services. The Commission is concerned that federal implementing regulations waste valuable special education resources in determining which category a child fits into rather than providing the instructional interventions a child requires. The priority should always be to deliver services, with assessment secondary to this aim. When schools are encouraged by federal and state guidelines to focus on assessment as a priority—and often for gate keeping functions to control expenditures—the main victims are the students themselves, whose instructional needs are not addressed in the cumbersome assessment process. Thus, the overall Commission recommendation for assessment and identification is to simplify wherever possible and to orient any assessments towards the provision of services (President's Commission, 2002, p.22).

4.2   Problems with Classification Systems

As mentioned in the previous chapter, special educational classifications based on disabilities are problematic for several reasons. Firstly, they tend to attribute student failure to a defect or inadequacy within the individual student, thus masking the role that highly constraining educational systems may play in creating failure. Secondly, they wrongly suggest homogeneity within various diagnostic categories. Thirdly, many SWSEN do not manifest demonstrable disabilities. Fourthly, studies show that instruction based on disability categories is of limited utility. As well as these four limitations, three other problems should be taken into account, according to Farrell (2010): Fifthly, since all disability categories are continuous in nature (as opposed to being discrete entities such as gender), they require some judgement to be exercised about the relevant cut-off points for special educational purposes, which is not always a straightforward task. Sixthly, issues of category boundaries arise through the co-occurrence of various disabilities. For example, according to the American Psychiatric Association (2000), around half of clinic-referred children with ADHD also have an oppositional defiant disorder or a conduct disorder. Seventhly, since disability categories may militate against seeing the student holistically, 'care is needed that classification of a disorder or disability does not come to be seen as a classification of the child' (Farrell, 2010, p.55).

Farrell went on to note that, in light of such problems, the validity and reliability of some categories of disability may be questionable, leading to some 'very wide variations in the supposed prevalence of conditions' (p.56). He cited studies

reported by the authors of the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision (DSM-IV-TR) (American Psychiatric Association, 2000), which showed a wide range in estimates of the prevalence of particular disorders. For example, 'oppositional defiance disorder' varied from 2% to 16%, and 'conduct disorders' ranged from 1% to 10% in the general population.

But care must be taken not to throw the baby out with the bathwater, for classification does have some merits, provided its limitations are borne in mind. Farrell (2010) suggested, firstly, that 'the reliability and validity of categories can be tested, leading to clearer and more robust categories' (p.60). Secondly, the relationship between categories, assessment and intervention must be made clear. Thirdly, despite the challenges in delineating disabilities, 'much that is useful to teachers and others can be identified in research and professional practice referring to categorical classifications' (ibid.).

4.3 Terminology

As well as the diversity of categories outlined above, there are differences in the way the broad field of provisions are described internationally. There are three main divisions: 'special education', 'inclusive education', and hybrids of the two. Australia provides a good case in point. As summarised by Shaddock et al. (2009), many state departments in Australia now refer to services using some reference to disability, for example, NSW – 'Disability Programs'; Tasmania – 'Students with Disabilities'; South Australia – 'Disability Services'; and Victoria – 'Students with Disabilities'. In contrast, two states use the term 'Inclusive Education' to describe their services: Western Australian services are known as 'Inclusive Education' and Queensland employs a hybrid term, 'Inclusive Education and Learning and Disability Support'. Shaddock et al. also pointed out that only the two territory governments, ACT and Northern Territory, currently use 'Special Education' as a descriptor of services: 'Special Education and Wellbeing' (NT) and 'Special Education' (ACT). They conclude that 'In Australia, the use of 'special' to describe services for students with a disability is clearly not the preferred option' (p.33).

Other countries reflect this diversity of terminology: for example, the US prefers 'special education', Japan 'special support education', Scotland 'educational provision for pupils with additional support needs', Europe in general and South

Africa 'special needs education' (the latter administered by the Directorate of Inclusive Education).

It should not be assumed that this diversity of terminology is merely semantic, for, in most cases it represents significant differences in the perceptions of student diversity and the scope of provisions designed for them.

4.4 Summary

1. *There is no universal agreement as to how SWSEN should be referred to, how they should be defined and what, if any, categories they should be divided into.*

2. *.Differences in definitions and categorisation influence the structure and function of special education services and how they are funded.*

3. *This diversity reflects a variety of factors, including different philosophical positions; the history of organisations/systems; local traditions within school districts; legal foundations; and fiscal policies and constraints.*

4. *In order to deal with this diversity, the OECD obtained agreement across countries to re-allocate their national categories into three types:*

   a. *Category A: Disabilities: students with disabilities or impairments viewed in medical terms as organic disorders attributable to organic pathologies; their educational need is considered to arise primarily from problems attributable to these disabilities.*

   b. *Category B: Difficulties: students with behavioural or emotional disorders, or specific difficulties in learning, arising primarily from problems in the interaction between the student and the educational context.*

   c. *Category C: Disadvantages: students with disadvantages arising primarily from socio-economic, cultural, and/or linguistic factors, and whose educational need is to compensate for the disadvantages attributable to these factors.*

5. *In category A, the number of national sub-categories in OECD countries varied from two to 19, with most countries having 12 or 13 sub-categories and nine sub-categories being found in virtually every country.*

6. *Countries differed the most in relation to category C.*

7. *Some countries have adopted an anti-category approach, although none have abandoned them entirely and some are returning to a limited form of categorisation.*

8. *In the US, the President's Commission on Excellence in Special Education (2002) was very critical of what it referred to as 'the proliferation of categories and assessment guidelines that vary in their implementation, often with little relation to intervention'.*

9. *Several problems with classifications based on disability categories have been identified:*

   a. *they mask the role that constraining educational systems may play in creating failure,*

   b. *they wrongly suggest homogeneity within various diagnostic categories,*

   c. *many SWSEN do not manifest demonstrable disabilities,*

   d. *studies show that instruction based on disability categories is of limited utility,*

   e. *they require some judgement to be exercised about the relevant cut-off points for special educational purposes,*

   f. *issues of category boundaries arise through the co-occurrence of various disabilities, and*

   g. *disability categories may militate against seeing the student holistically.*

10. *As well as the diversity of categories outlined above, there are differences in the way the broad field of provisions are described internationally. There are three main divisions: 'special education', 'inclusive education', and hybrids of the two.*

CHAPTER FIVE

DISPROPORTIONALITY IN SPECIAL EDUCATION

Disproportionality, or disproportionate representation, is generally defined as 'the representation of a particular group of students at a rate different than that found in the general population' in special education (Gravois & Rosenfield, 2006, p.42). This may comprise either an over- or an under-representation of a specific group of students (Anastasiou etal., 2011; Bruce, 2014). As noted by British researchers Strand & Lindsay (2009):

> Both over-and under-representation are problematic if they are associated with reduced access to the most appropriate forms of education, whether by inappropriate placement inspecial education programs for students who do not need such support and who may then miss out on a mainstream curriculum, or by a lack of support for students who would benefit from special education provision. In either case, inappropriate matches may reduce students' educational opportunities (p.175).

Similar potentially negative outcomes have been noted by US researchers (e.g., Artiles et al., 2010) and Canadian researchers (e.g., Parekh et al., 2011).

In many countries, the apparent over-representation in special education of three groups of students – those from ethnic minorities, males and those from low socio-economic homes – has caused concern to policy makers who worry about the probability of such students being misidentified, misclassified, and inappropriately placed in special education programmes. This chapter will cover all three of these groups.

Before reviewing the literature on disproportionality, it is interesting to observe that placement in special education is seen as a negative outcome by many of those who express concern about the over-representation of boys, ethnic minorities and children from low socio-economic status homes. For example, in the US, the Elementary and Middle Schools Technical Assistance Center (2010) stated that:

> For ethnic minority students, misclassification or inappropriate placement in special education programs can have devastating consequences. The problem is exacerbated when it results in a child's removal from the regular education setting, the core curriculum, or both. Students faced with such exclusionary practices are more likely to encounter a limited curriculum and lower teacher expectations. As a result, these students often have more negative post-school outcomes as evidenced by their lack of participation in post-secondary education and limited employment opportunities. In some districts, the

disproportionate representation of ethnic minority students in special education classes also results in significant racial separation.

Further, as Ahram et al. (2011) have noted, in many cases, students affected by disproportionality are less likely to receive access to the full school curriculum and are therefore less likely to be eligible for admissions to a postsecondary institution (Fierros & Conroy, 2002; Harry & Klingner, 2006). Research also shows that many of these students face diminished employment and postsecondary opportunities over the course of their lifetimes (Harry & Klingner; 2006). As well, students receiving special education services typically have limited interactions with mainstreamed peers and often face a social stigmatisation associated with being labeled intellectually, physically, or emotionally disabled (Anastasiou, 2011; Gartner & Lipsky, 1999). To compound these issues, once students are placed in special education classes, there is a high probability that they will continue to be in special education classes for the remainder of their elementary and secondary career (Harry & Klingner 2006). US writers such as Patton (1998) view disproportionality negatively due to historical inequities inflicted on minorities and the possibility that it may be an indication of continued racial bias.

However, as Macmillan & Rechsley (1998) pointed out, it is ironic to consider over-representation to be a problem if students are supposedly gaining the advantage of special education.

5.1   Over-representation of Ethnic Minorities in Special Education

Disproportionate representation of students from ethnic minority backgrounds in special education has been a persistent concern in the field for more than 30 years, particularly in the US (Fiedler et al., 2008; Garcia & Ortiz, 2006; Scuba et al., 2005) and the UK (Dyson & Gallannaugh, 2008; Strand & Lindsay, 2009). (In passing it is worth noting that an opposite situation pertained in South Africa where, under apartheid, *whites* were over-represented in special education (Department of Education, 2001).

In considering the over-representation of ethnic minorities in special education, attention must also be paid to a relevant, and possibly causative factor: the continuing gulf between schools and those families whose cultures differ from their children's school. In their recent review of IEPs, the writer and his colleagues referred to the work of the following writers who have analysed this situation: Calicott, 2003;

Hanson et al., 1990; Harry et al., 1995; Kalyanpur & Harry, 1997; Robinson & Rathbone, 1999; Thorp, 1997; Trainor, 2010; Valenzuela & Martin, 2005; and Zhang & Bennett, 2003).

5.1.1 Evidence of ethnic disproportionality

Two countries have detailed statistics on the ethnicities of students classified as having special educational needs – the US and England.

USA. In the US, the issue of ethnic minority over-representation was explored in some detail by Artiles (2003). He noted that in that country, African Americans and Native Americans were disproportionately represented in special education, especially in the high incidence categories of learning disabilities, mental retardation and emotionally disturbed.

The re-authorisation of IDEA in 1997 required states to collect and analyse data to 'determine if significant disproportionality based on race is occurring in the state or schools'. Five race/ethnicity categories are used in the collection of these data: American Indian, Asian/Pacific Islander, black (non-Hispanic), Hispanic, and white (non-Hispanic). The Office of Special Education Programs (OSEP) in its Annual Report to Congress then collates this information. For example, the 22nd Annual Report to Congress included the information outlined in Table 5.1 about the race and ethnicity of students with disabilities (U.S. Department of Education, 2000):

Table 5.1. Percentage of students by ethnicity in the population and in special education in the United States in the 1998-99 school year

Percentage of Students by Ethnicity		
	Percentage of students in general population	Percentage of students in special education population
Asian/Pacific Islander	3.8	1.7
Black (non-Hispanic)	14.8	20.2
Hispanic	14.2	13.2
American Indian	1.0	1.3
Caucasian (non-Hispanic)	66.2	63.6

OSEP presented a second, more detailed, set of statistics in Table 5.2, which shows the percentages of students, by ethnicity making up the various disability categories.

Table 5.2. Percentage of students aged 6 to 21 by race/ethnicity served by disability services in the 1998-99 school year in the United States

Disability	American Indian	Asian/ Pacific Islander	Black (non-Hispanic)	Hispanic	White (non-Hispanic)
Specific Learning Disabilities	1.4	1.4	18.3	15.8	63.0
Speech and Language Impairments	1.2	2.4	16.5	11.6	68.3
Mental Retardation	1.1	1.7	34.3	8.9	54.1
Emotional Disturbance	1.1	1.0	26.4	9.8	61.6
Multiple Disabilities	1.4	2.3	19.3	10.9	66.1
Hearing Impairments	1.4	4.6	16.8	16.3	66.0
Orthopedic Impairments	.8	3.0	14.6	14.4	67.2
Other Health Impairments	1.0	1.3	14.1	7.8	75.8
Visual Impairments	1.3	3.0	14.8	11.4	69.5
Autism	.7	4.7	20.9	9.4	64.4
Deaf-Blindness	1.8	11.3	11.5	12.1	63.3
Traumatic Brain Injury	1.6	2.3	15.9	10.0	70.2
Developmental Delay	.5	1.1	33.7	4.0	60.8
All Disabilities	**1.3**	**1.7**	**20.2**	**13.2**	**63.6**
Resident population	**1.0**	**3.8**	**14.8**	**14.2**	**66.2**

In commenting on the above statistics, OSEP made the following points regarding what it described as 'disparities' between the race/ethnicity distribution of the students served under IDEA and the general population of students. These included the following:

- *Asian/Pacific Islander* students represented 3.8% of the general population, but they comprised only 1.7% of those receiving special education services in all disability categories. This percentages varied by disability category: in the areas of hearing impairments (4.6%), autism (4.7%), and deaf-blindness (11.3%), the representation of Asian/Pacific Islander students was greater than their representation in the resident population.

- *Black (non-Hispanic)* students accounted for 14.8% of the general population, compared with 20.2% of the special education population in all disabilities. In 10 of the 13 disability categories, the percentage of the special education population composed of black students equaled or exceeded the resident population percentage. At the most extreme, black students' representation in

the mental retardation and developmental delay categories was more than twice their national population estimates.

- Representation of *Hispanic* students in special education (13.2%) was generally similar to the percentages in the general population (14.2%). However, Hispanic students exceeded the resident population percentages in three categories: specific learning disabilities (15.8%), hearing impairments (16.3%), and orthopedic impairments (14.4%).

- *American Indian* students represented 1.0% of the general population and 1.3% of special education students. They slightly exceeded the national average in nine disability categories, reaching the largest percentages in the categories of deaf-blindness (1.8%) and traumatic brain injury (1.6%).

- Overall, *white (non-Hispanic)* students made up a slightly smaller percentage (63.6%) of the special education students than the general population (66.2%). However, their representation was higher than the national population estimates in five disability categories: speech and language impairments (68.3%), orthopedic impairments (67.2%), other health impairments (75.8%), visual impairments (69.5%), and traumatic brain injury (70.2%).

United Kingdom (England). Table 5.3 outlines the primary school statistics for 2007 in England on the number of pupils with special educational needs by ethnicity. (It will be noted that England does not keep statistics comparable to those kept in the US). From this table it can be seen that the ethnic groups with the highest percentages of students classified as having special educational needs were Travellers of Irish heritage (2.6% with statements and an incredible 55.5% without statements), closely followed by Gypsy/Roma students (2.5% and 49.2%, respectively). At the other end of the continuum were Chinese students (1.2% and 11.1%, respectively) and Indian students (1.2% and 14.2%). By comparison, the figures for the majority group, White British, were 1.8% and 20.0%, respectively.

In a recent UK study, Strand & Lindsay (2009) analysed the 2005 Pupil Level Annual School Census for 6.5 million students aged 5 to 16 years in England. They found that poverty and gender had stronger associations than ethnicity with the overall prevalence of SWSEN. However, after controlling for these effects, significant over- and under-representation of some minority ethnic groups relative to White British students remained. The nature and degree of these disproportionalities varied

across categories of special educational needs and minority ethnic groups and were not restricted to judgmental categories of special educational needs.

Table 5.3. Maintained primary schools' number of pupils with special educational needs by ethnic group in England (January 2007)

Ethnic group	1	2	3	4	5	6	7	8	9
White	**2,666,330**	**46,530**	**1.7**	**357,110**	**13.4**	**178,070**	**6.7**	**535,180**	**20.1**
White British	2,545,340	44,770	1.8	338,810	13.3	169,910	6.7	508,720	20.0
Irish	11,760	230	1.9	1,570	13.4	870	7.4	2,440	20.7
Traveller (Irish)	2,840	70	2.6	940	33.0	640	22.5	1,580	55.5
Gypsy / Roma	5,370	140	2.5	1,630	30.4	1,010	18.8	2,640	49.2
Other White	101,000	1,320	1.3	14,160	14.0	5,650	5.6	19,800	19.6
Mixed	**122,450**	**2,090**	**1.7**	**16,780**	**13.7**	**8,240**	**6.7**	**25,030**	**20.4**
W& B Caribbean	40,770	740	1.8	6,470	15.9	3,280	8.1	9,750	23.9
W&B African	13,330	190	1.4	1,920	14.4	960	7.2	2,880	21.6
W & Asian	25,500	370	1.4	2,730	10.7	1,230	4.8	3,960	15.5
Other mixed	42,860	790	1.8	5,670	13.2	2,780	6.5	8,450	19.7
Asian	**276,540**	**4,030**	**1.5**	**39,770**	**14.4**	**14,400**	**5.2**	**54,170**	**19.6**
Indian	78,720	910	1.2	8,480	10.8	2,720	3.5	11,200	14.2
Pakistani	114,780	2,070	1.8	20,060	17.5	7,620	6.6	27,670	24.1
Bangladeshi	48,170	670	1.4	7,460	15.5	2,730	5.7	10,190	21.2
Chinese	11,040	140	1.2	880	8.0	350	3.2	1,230	11.1
Other Asian	34,870	390	1.1	3,770	10.8	1,330	3.8	5,100	14.6
Black	**151,990**	**2,870**	**1.9**	**26,450**	**17.4**	**12,730**	**8.4**	**39,180**	**25.8**
Black Caribbean	47,230	1,020	2.1	8,900	18.8	4,830	10.2	13,730	29.1
Black African	88,210	1,510	1.7	14,690	16.7	6,460	7.3	21,150	24.0
Other Black	16,550	350	2.1	2,860	17.3	1,440	8.7	4,300	26.0
Other ethnic grp	**40,110**	**560**	**1.4**	**5,960**	**14.8**	**2,320**	**5.8**	**8,270**	**20.6**
Classified	**3,268,470**	**56,200**	**1.7**	**446,940**	**13.7**	**216,120**	**6.6**	**663,060**	**20.3**
Unclassified	**35,910**	**680**	**1.9**	**5,460**	**15.2**	**2,720**	**7.6**	**8,180**	**22.8**
All pupils	*3,304,370*	*56,880*	*1.7*	*452,400*	*13.7*	*218,830*	*6.6*	*671,230*	*20.3*

Source: School Census

Key

1. Total pupils
2. Pupils with statements of special educational needs
3. % of pupils by SEN provision expressed as a percentage of total pupils according to ethnic group
4. Pupils with SEN at School Action
5. % of pupils by SEN provision expressed as a percentage of total pupils according to ethnic group

6. Pupils with SEN at School Action Plus

7. % of pupils by SEN provision expressed as a percentage of total pupils according to ethnic group

8. Total pupils with SEN without statements

9. % of pupils by SEN provision expressed as a percentage of total pupils according to ethnic group

In another study, Read et al. (2007) also focused on disabilities, reporting the following, inter alia:

a. *Black Caribbean and Mixed White and Black Caribbean* pupils were around 1.5 times more likely to be identified as having Behavioural, Emotional and Social Difficulties (BESD) than White British pupils;

b. *Bangladeshi* pupils were nearly twice as likely to be identified as having Hearing Impairments than White British pupils,

c. *Pakistani* pupils were between 2 and 2.5 times more likely to be identified as having Profound and Multiple Learning Difficulties, Visual Impairments, Hearing Impairments or Multi-sensory Impairments than White British pupils;

d. *Asian and Chinese* pupils were less likely than White British pupils to be identified as having Moderate Learning Difficulties, Specific Learning Difficulties and Autistic Spectrum Disorders; and

e. *Travellers of Irish Heritage and Gypsy/Roma* pupils were overrepresented among many categories of special educational needs, including Moderate, and Severe Learning Difficulties and BESD.

New Zealand. Against the previous trends, the ethnic distribution of the 1.1% of the total schooling population who received Ongoing and Reviewable Resourcing Scheme (ORRS) funding arising from their classification as having high or very high needs, matched that of the general schooling population. Thus, Maori students made up 21.7% of ORRS recipients, compared with them making up 23.3% of the school population, the comparable figures for European students being 53.2% for both ORRS funding and the school population.

5.1.2 Explanations for ethnic disproportionality

Despite consistent documentation of the existence of disproportionality across many countries, there has been relatively little exploration of the possible causes and factors contributing to racial disparities in special education (Skiba et al., 2005).

Before exploring possible explanations for ethnic disproportionality, it is necessary to consider quite a serious caveat regarding its evidential basis – at least that coming out of the US. Thus, MacMillan & Rechsly (1998) have argued that the over-representation of ethnic minorities in special education is not a straightforward matter. In their critique of the US literature, they argued that data suffer from four major problems. Firstly, quite different results are obtained when percentages of groups in categories or programmes are used, compared with the more commonly cited data on percentage of categories or programmes by groups. Secondly, they urge caution in relying on aggregated data on race/ethnicity from sources that use different approaches to recording these features (in a related point, they note that most data collection fails to account for biracial students). Thirdly, in noting the considerable variability in rates of disability across states, particularly in categories requiring subjective judgements, they question the validity of these designations. Fourthly, they note the failure to consider that social class, rather than race/ethnicity, may be the more significant variable to focus on when considering over-representation.

However, if we accept that since ethnic disproportionality seems to be a universal phenomenon, it is highly likely to be a valid construct and it is therefore appropriate to turn our attention to possible explanations for it. These are many and varied and include such factors as poverty, socioeconomic disadvantage, the lack of congruence between minority cultures and the school culture, the legacy of deficit thinking about racial minorities, bias towards racial minorities, the history of school segregation (at least in the US), resource inequalities, asynchronous power relationships between school authorities and minority parents, culturally inappropriate or insensitive assessment practices, and inadequate professional development opportunities for teachers (Elementary and Middle Schools Technical Assistance Center, 2010; Fiedler et al., 2008; Gabel et al., 2009; Losen & Orfield, 2002; Skiba et al., 2005).

It is to the first of these explanations – poverty – that we shall now turn our attention. The consistent overlap of race and poverty in the US has led some to

suggest that race is simply a 'proxy' for poverty and that *ethnic disproportionality in special education is in large measure an artefact of the effects of poverty' (Skiba et al., 2005, p.130*). Indeed, some writers think that the link between poverty and race is so strong that the former could be used as a substitute for the latter in collecting demographic data for the purposes of predicting educational outcomes (Hodgkinson, 1995).

Support for a race-poverty connection in explaining disproportionality in special education can be found in a range of sources. Firstly, the U.S. Bureau of the Census 2001 data showed that whereas 14.4% of White children lived in homes at or below the poverty line in 2000, 30.4% of African American children and 29.2% of Latino children lived in families below the poverty level (Skiba et al., 2005). As mentioned above, MacMillan & Reschly (1998) argued that insufficient attention has been paid to variations in special education disproportionality by social class and that *'social class, and not ethnicity, would explain more variance in the rates of detection for these high-incidence disabilities, particularly MMR [mild mental retardation]' (p. 20).*

Skiba et al., 2005 have presented a detailed analysis of the reasoning behind claims that disadvantages associated with poverty constitute a primary contribution to minority over-representation in special education. They argued that there are at least four assumptions implicit in a logical sequence linking poverty and disproportionality:

1. Minority students are disproportionately poor and hence are more likely to be exposed to a variety of sociodemographic stressors associated with poverty.

2. Factors associated with living in poverty leave children less developmentally ready for schooling and ultimately yield negative academic and behavioral outcomes.

3. Students who are low achieving or at risk for negative behavioral outcomes are more likely to be referred to, and ultimately found eligible for, special education service.

4. Therefore, poverty is an important contributing factor that increases the risk, presumably in a linear fashion, of special education placement for minority students (p.131).

Skiba et al. went on to argue that, given such a logical sequence, it might be assumed that if the first three propositions are proven, the fourth can be inferred. In a closely reasoned argument, they concluded that even a relatively substantial overlap between poverty, race, and achievement does not guarantee a strong association between poverty and minority placement in special education. They concluded that poverty makes only a weak and inconsistent contribution to the prediction of disproportionality across a number of disability categories, and that 'where poverty makes any contribution to explaining disproportionality, its effect is primarily to magnify already existing racial disparities' (p.141).

5.1.3 Addressing the problem of disproportionality

There are two main ways of addressing disproportionality –through legislation and regulation and through actions at the school level.

Legislation and regulation. In the US, the most recent reauthorisation of IDEA 2004 made several statutory provisions to address the problem of disproportionality. Firstly, it required states and local education agencies to develop policies and procedures to prevent the over-identification of students with racial, cultural, ethnic, and linguistic diversity (RCELD). Secondly, it required school districts to gather and analyse data and identify disproportionality across disability categories, in special education placements, and in disciplinary actions. Thirdly, local education agencies with high rates of students with RCELD in special education are required to implement early identification services and to reserve a maximum amount of federal funds (15%) for early intervention services. Finally, the Office of Special Education Programs in the Department of Education was required to monitor state compliance with the IDEA regulations by reviewing state data on performance indicators, including two directly related to disproportionality (Fiedler et al., 2008). As well, The Department of Education's Office of Civil Rights (OCR) undertakes pro-active compliance reviews of disproportionate representation. This office gathers information on the racial breakdown of general and special education enrolments in districts and states. If disparities occur in these data, it works with the relevant districts to create an action plan to rectify the situation and a time schedule to report back to OCR (Elementary and Middle Schools Technical Assistance Center, 2010).

Actions at the school level. There is an extensive literature on how schools can prevent underachievement and failure at the school level among ethnic minorities,

thus obviating the need for special education placement. Research has shown that reducing disproportionality requires a comprehensive approach that encompasses teacher education, culturally appropriate assessment and instruction, cultural sensitivity, home and school collaboration, and an effective pre-referral process. It is beyond the scope of the present review to undertake a thorough review of this literature; however, a brief reference to some representative studies is included to give something of the tone of work in this area.

Before presenting these, the writer would like to observe that, for the most part, the principles described are relevant to all students, not just those from ethnic minorities. The truism that 'good teaching is good teaching' surely applies: the principles of learning and pedagogy apply similarly to all students. Just as the question of whether SWSEN require distinctive teaching strategies was answered both in the affirmative and the negative in Chapter Twelve, the same surely applies with respect to students from ethnic minorities: 'Yes' they need culturally appropriate teaching, but 'No' they share the same needs with other students for sound, evidence-based teaching; the goals - a marked and measurable change in educational outcomes - surely remain the same.

Writing on behalf of the National Center for Culturally Responsive Educational Systems (http://nccrest.org), Garcia & Ortiz (2006) have presented a comprehensive overview of how disproportionate representation can be prevented 'through culturally and linguistically responsive pre-referral interventions' (p.1). By 'pre-referral', they mean taking steps to avoid referring students for special education by 'differentiating students with disabilities from those whose academic or behavioral difficulties reflect other factors, including inappropriate or inadequate instruction' (p.4). Others to have identified pre-referral intervention as a successful way to decrease the number of inappropriate referrals for minority students include Schrag & Henderson (1996).

Garcia & Ortiz noted that the concept of pre-referral intervention is similar to the 'response to intervention' model (to be outlined in Chapter Seven of the present review). In making their case, they argued that

> it is critical that the pre-referral intervention process is culturally and linguistically responsive; that is, educators must ensure that students' socio-cultural, linguistic, racial/ethnic, and other relevant background characteristics are addressed at all stages, including reviewing student performance,

considering reasons for student difficulty or failure, designing alternative interventions, and interpreting assessment results (p.4).

Garcia & Ortiz went on to specify key elements of culturally- and linguistically-responsive pre-referral intervention for culturally and linguistically diverse students. These included the following:

- schools should recognise the fact that all students have cultures composed of social, familial, linguistic, and ethnically-related practices that shape the ways in which they see the world and interact with it;

- all educators should share responsibility for educating all students, through culturally responsive curricula and instruction and by creating learning environments in which their culturally and linguistically diverse students can be successful;

- educators should recognise that culturally and linguistically diverse learners are best served by curricula and instruction that build on their prior socio-cultural and linguistic knowledge and experiences;

- schools should offer an array of programmes and services that accommodate the unique learning characteristics of specific groups of students, including community-based programmes and support services;

- educators should create collaborative relationships with students and their families, by recognising parents/family members as valuable partners in promoting academic progress and by working with them from a posture of cultural reciprocity;

- school authorities should develop effective professional development programmes for educators, which gives attention to participants' cultural self-awareness, attitudes/expectations, beliefs, knowledge, and skills, as well as the socio-political contexts of education in culturally and linguistically diverse communities;

- schools should implement early intervention strategies as soon as learning problems are noted.

To this list many others could be added. One that is particularly worthy of attention is contained in a publication by Fiedler et al. (2008), who referred to Wisconsin's Checklist to Address Disproportionality in Special Education (CADSE). This checklist has three broad sections:

1. Culturally responsive beliefs and practices of schools and general education classrooms.

2. Culturally appropriate coordinated early intervening services and referral to special education.

3. Culturally responsive IEP team decision-making evaluation and determination of eligibility.

5.2   Over-representation of Males in Special Education

While there is clear international evidence of a gender imbalance in the incidence of disabilities and in special education enrolments, its causes are not so clear. In this section, the research findings showing gender differences, possible causes and educational implications will be outlined.

The principal sources of information for this section are a paper by Oswald et al. (2003), with its focus on special education, and an extensive report on boys' underachievement by Younger et al. (2005); others will be cited where relevant.

It should be noted from the outset that in the field of special education, some writers portray the gender imbalance as reflecting either or both an over-identification of males and an under-identification of girls (Wehmeyer & Schwartz, 2001). Also, at least one writer (Evans, 2000) has interpreted the gender imbalance to mean that boys receive more resources than girls to help them gain more access to the curriculum.

5.2.1 Research findings on gender imbalance in special education

There is abundant evidence from many countries to show that there are significant gender differences in achievement levels and access to special education.

United States. In their reviews of predominantly US literature, Oswald et al. (2003), Frombone (2005) and Yeargin-Allsopp et al. (2007) reported the following:

- Since the 1960s, the overall male to female ratio in special education has been between 2:1 and 3:1.

- For only a few childhood disorders are prevalence rates higher for girls than boys (e.g., separation anxiety, selective mutism, neural tube defects (NTD), and translocation Down syndrome). With respect to NTD, females are affected 3-7 times as frequently as males, except for sacral-level NTDs, which are about equal (Liptak,

2007). Translocation Down syndrome was represented by females at 74% compared with males at 26% (Roizen, 2007).

- Only for deaf/blindness are boys identified at about the same rate as girls (49.5%);

- For other impairments or disabilities, males predominate: (a) hearing impairments (52%), (b) orthopedic impairments (54%), (c) deafness (54%), (d) other health impairments (56%), (e) visual impairments (56%), (f) mental retardation (secondary school) (58%), (g) speech impairments (60%), (g) multiple disabilities (65%), (h) learning disabilities (73%), and (i) emotional disorders (76%). Also, as reported by Yeargin-Allsopp (2007), ADHD has a 4:1 ratio of males to females and cerebral palsy a ratio between 1.1:1 and 1.5:1. Roizen (2007) reported that trisomic Down syndrome was represented by males at 59% and females at 41%.

- In several studies of gender ratios in autism, the male/female ratio varied from 1.33:1 to 16:1, with a mean ratio of 4.3:1. Gender differences were more pronounced when not associated with mental retardation. In 13 studies where the sex ratio was available within the normal band of intellectual functioning, the median sex ratio was 5.5:1. Conversely, in 12 studies, the sex ratio was 1.95:1 in the group with autism and moderate to severe mental retardation.

Also drawing upon US research, the American Psychiatric Association (2000) reported a predominance of males with mental retardation (the male/female ratio was about 1.5:1) and ADHD (estimates ranged from 4:1 to 9:1).

United Kingdom. In England, too, there is clear evidence of a gender imbalance in special education statistics, according to the National Pupil Database Version 2.2 (combining 2003 PLASC data and final 2002 attainment data), the Department for Children, Schools and Families (2007) and articles by Daniels et al. (1999), and Eason (2002):

- 68% of the 88,000 students in special schools were boys;

- of those with formal statements, 72% were boys and 28% girls; expressed another way, 21.4% of boys had special educational needs without a statement, compared with 12.6% of girls, while 2.5% of boys had a statement of special educational needs, compared with 1.0% of girls;

- almost five times as many boys as girls were expelled from school;

- of the more than 1.5 million students who were defined as having special educational needs, 64% were boys and 36% were girls;

- girls and boys were more or less equally likely to have physical disabilities, but boys were far more likely than girls to have specific learning difficulties, autistic disorders or emotional or behavioural problems.

Germany. also has a similar over-representation of boys identified as having special needs, 64% of students attending special schools being boys (Powell, 2004).

New Zealand. As at 1 July 2014, there were 8,252 students receiving Ongoing and Reviewable Resourcing Scheme funding because they had high needs for support. These students represented 1.1% of the total schooling population. Boys made up 65% of students receiving this funding. (https://www.educationcounts.govt.nz/statistics/special-education/ongoing-resourcing-scheme)

OECD. The OECD (2005) has reported gender imbalances across a range of countries. Using its three-way categorisation, described in Chapter Three, it found that the median percentages for boys were: 61.3% in category A (disabilities), 66.78% in category B (difficulties), and with a typical range for category C (disadvantages) of between 50 and 60%. It also noted that the gender imbalance for Category A was most marked for autistic spectrum disorders, emotional and behavioural difficulties, and learning difficulties, and was the least marked for hearing impairments.

5.2.2 Boys' underachievement

As well as the above findings from special education, there is an extensive literature on boys' underachievement at school. While it is not within the scope of the present review to deal with this literature in depth, it does serve to contextualise the special education findings by showing that gender imbalances are pervasive and are of widespread concern. An excellent review of this literature can be found in a Cambridge University report authored by Younger et al. (2005). In their survey of the international literature on boys' academic underachievement, they included the following points:

- In the United Kingdom, national performance data have shown a 'gender gap' between the levels of boys' and girls' performance, whether at the age of 7 in reading

and writing or at the age of 16, in virtually all GCSE subjects. As well, there is evidence that more boys than girls are disengaged, that more discipline problems are perceived to be caused by boys, and that more boys are excluded from secondary schooling.

- In Australia, there are references to 'underachieving and under privileged' boys and of boys as the 'new disadvantaged'.

- In the United States, there are concern around the theme of how to 'protect' boys, and on how teachers, counsellors and therapists might identify and respond to boys' hidden despondency and depression.

- In mainland Europe, there are similar concerns. For example, in Belgium, research suggests that boys' culture is less study oriented than girls' and that this impacted upon achievement levels in secondary schooling; in Sweden, there has been a concern with the need to develop boys' social competence and democratic understanding; while in Germany girls have been obtaining better school marks than boys, repeating classes less often and gaining school certificates more successfully.

5.2.3 Possible causes of gender imbalance

In addressing the question of the over-representation of males in special education and the corollary phenomenon of more underachievement among boys, a range of reasons have been advanced (Wehmeyer & Schwartz, 2001; Oswald et al., 2003; OECD, 2005; Younger et al., 2005):

a. *Biological factors.* According to Oswald et al. (2003), early explanations emphasised physiology and sex-linked genetic characteristics. The case for a biological basis appeals to gender differences in such factors as genetics, hormones, brain function, and maturation and development. In support of this explanation, Oswald et al. cited reports which document higher rates among boys for foetal mortality, postnatal mortality, complications during pregnancy and childbirth, and congenital malformations. They noted that males are at increased risk for X-linked disorders because they receive only one copy of the X chromosome from their parents, whereas females receive two; thus having a better chance of receiving at least one unaffected copy of the X chromosome. On balance, they claimed that the biological hypothesis for gender disproportionality had the strongest support in the case of mental retardation. They also pointed out that many studies have suggested that overrepresentation of males in special

education, and male predominance in childhood psychiatric disorders and learning disabilities, occur because boys mature more slowly than girls. As well, they cited writers who hypothesise pervasive hormone effects on behaviour that extend well beyond sexual and reproductive behaviours.

This latter point was taken up by Younger et al. (2005) when they noted the existence of brain differences between girls and boys with links to boys' testosterone and the 'natural' development of boys. Similarly, they cited researchers who have argued for a biological construction of masculinity, with studies showing behavioural sex differences at a very early age, before children are able to form any notions of socially constructed gender.

b. *Unacceptable behaviour patterns.* Several writers have referred to the tendency for more boys than girls to exhibit behaviour patterns (such as externalising their feelings) that are considered by teachers and other professionals to be socially unacceptable and thus are more likely to lead to special education referrals (OECD 2005, Oswald et al., 2003). Thus, there may be a gender bias in referrals and admissions. A related point, advanced by some writers, is that schooling is becoming feminised (OECD 2005 p. 140), and, possibly a corollary, that masculine behaviours exhibited by boys are less acceptable (OECD, 2005).

Related points were made by Younger et al. (2005) when they cited studies indicating boys' disregard for authority, academic work and formal achievement and the formation of concepts of masculinity which are in direct conflict with the ethos of the school.

c. *Peer influences.* One of the crucial factors leading to boys' underachievement, according to Younger et al. (2005), is the importance for many boys to be accepted by other boys, to enable them to identify with and act in line with peer group norms, so that they are seen as belonging, rather than as different. Such acceptance is often dependent on showing behaviours, speech, dress and body language that incorporate aspects of 'laddishness' and risk-taking to gain and protect a macho image. Such laddishness often runs counter to the expectations of the school.

d. *Learning strategies.* Younger et al. (2005) described studies showing gender differences in attitudes to work, goals and aspirations and learning strategies. With respect to the last point, girls placed more emphasis on collaboration, talk and

sharing, whilst boys were neither competitive nor team players. They were unwilling to collaborate to learn, and were less inclined to use cooperative talk and discussion to aid and support their own learning.

e. *Underidentification of girls.* A corollary of point b above may occur because the problems that girls present are not recognised by school personnel as the type of problem typically identified under current definitions of emotional disorders. Commonly used measures for assessing these in schools may not capture the emotional and behavioural problems that are more common in girls (e.g., adolescent depression) (Oswald et al., 2003).

f. *School factors.* Writing from an English perspective, Daniels, et al. (1999) noted that overall patterns of gender imbalance obscured considerable inter-school variability, with ratios of girls to boys varying from 1:1 to 1:8. The authors argued that there is thus a need to investigate what aspects of schools give rise to such disparities. Perhaps they arise from factors such as those outlined in b above.

g. *Ethnicity.* Here, two sets of findings need to be considered. Firstly, in the UK, Daniels et al. (1999) reported that gender differences were much greater among whites than among blacks, suggesting that both gender and race should be considered simultaneously. Secondly, in the US, Oswald et al. (2003) noted a similarity of gender disproportionality across racial/ethnic groups, regardless of disability condition. This finding suggests that, whatever the forces are that influence gender disproportionality, they act on all racial/ethnic groups in a similar fashion.

h. *Students' age.* There is some evidence that gender ratios are influenced by students' age. Phipps (1982), for example, found that disproportionality was greatest among children aged 5–11, during which time referral rates for boys appear to surge. Before and after that, identification rates for boys and girls were much more similar.

Rather unsatisfactorily, perhaps, Oswald et al. (2003) concluded their review of the literature with the statement that the question of whether gender disproportionality reflects actual differences between boys and girls or is the result of environment and cultural influences manifested in teacher–student interactions remains unresolved (p.226).

5.2.4 Educational implications of gender imbalances

The first point to be made here is to recognise that although there are clear gender differences in the incidence of many disabilities and that, on the whole, boys are at greater risk for underachievement and special education referral, there are considerable overlaps between the genders. By no means are all boys underachievers or identified as having special educational needs, nor are all girls outside these categories. A second point is that gender equity does not necessarily mean that there should be equal numbers of males and fmales in special education (Bruce & Venkatesh, 2014). Rather, the goal should be to ensure that both boys and girls experience non-discriminatory referral and identification processes (Coutinho & Oswald, 2005).

Educators should recognise that, in general, boys are biologically at higher risk than girls for certain disabilities. Apart from recognising the causation of such disabilities, and not searching for environmental explanations, teachers must accommodate their teaching to take any associated learning difficulties into account. This might mean, for example, allowing for the fact that boys tend to mature more slowly than girls by making appropriate adjustments to the curriculum and teaching strategies.

In the case of students whose special educational needs are more clearly associated with environmental factors, schools should carefully evaluate their policies and procedures to deal with these factors. For example, the school and classroom disciplinary procedures may be biased against boys and there may be insufficient attempts to deal with aspects of boys' culture that are inimical to boys acquiring more socially acceptable behaviour or more appropriate academic motivation.

Turning to the possibility of girls being unidentified as having special educational needs, schools and those responsible for assessing students' needs for special support should re-examine their criteria to ensure that problems that girls may have are not overlooked.

For more detailed analyses and suggestion relating to addressing boys' underachievement, the reader is referred to Younger et al. (2005).

5.3 Over-representation of Students from Low Socio-economic Families

Elsewhere, the writer reviewed the literature showing that poverty has a negative impact on child development (Mitchell, in preparation). He noted that the

deleterious effects of poverty on child development have been well established in research, with poverty identified as being among the most powerful risk factors for development (Brooks-Gunn & Duncan, 1997). For example,, children exposed to poverty have poorer cognitive outcomes and they are at higher risk for antisocial behaviors and mental disorders (Yoshikawa et al., 2012).

As noted in a recent review by Bruce & Venkatesh (2014), Fujiura & Yamaki (2000) in their analysis of the National Health Interview Survey data from 1983–1996, correlated growing US childhood poverty rates with increased rates of disability identification. Similarly Delgado & Scott (2006) found that poverty-related factors such as low birth weight, prematurity, and low maternal education were related to higher levels of special education referral in the US. Living in poverty means living in impoverished neighborhoods where poor schooling and exposure to violence is more likely, creating additional risks for a disability (Suarez-Orozco, 2001). Further, children from lower socio-economic backgrounds are more likely to attend under-resourced schools with teachers who are not as well qualified, and they are more likely to be denied participation in the most academically challenging programmes, putting them at risk for eventual identification of a mild disability (Harry & Klingner, 2007; Parekh, et al., 2011; Skiba et al., 2008).

A recent US study showed that poverty in early childhood has a negative impact on brain development at school age (Luby et al., 2013). Children were assessed annually for 3 to 6 years, during which they were evaluated on psychosocial, behavioral, and other developmental dimensions. There were two major findings: first, poverty was shown to be associated with smaller white and cortical gray matter and hippocampal and amygdala volumes, and, second, the effects of poverty on hippocampal volume were mediated by caregiving support/hostility on the left and right, as well as stressful life events on the left. These brain regions, involved in memory, stress regulation and emotion processing, are known to be sensitive to environmental stimuli. The authors noted that poverty is strongly associated with a number of risk factors implicated in poor developmental outcomes, such as unsupportive parenting, poor nutrition and education, lack of caregiver education, and high levels of traumatic and stressful life events. This study is consistent with other research that found a smaller hippocampus and amygdala in 5- to 17-year-old children living in poverty (Noble et al., 2012). Another study similarly found that lower SES

was associated with smaller hippocampal gray matter volumes in a small sample of healthy 10-year-old children (Jednoróg, 2012). For further reviews of the impact of poverty on brain development, see Lipina & Colombo, 2009).

These findings go a long way to explaing the over-represenation of children from low-SES homes in special education.

5.4   Summary

1. *Disproportionality, or disproportionate representation, is generally defined as the representation of a particular group of students at a rate different than that found in the general population.*

2. *There is an irony in considering over-representation to be a problem if students are purportedly gaining the advantage of special education.*

3. *There is clear international evidence of disproportionality of students from ethnic minority backgrounds in special education.*

4. *However, some caveats have been entered regarding the evidential basis of ethnic disproportionality– at least that coming out of the US.*

5. *The consistent overlap of race and poverty in the US has led some to suggest that race is simply a proxy for poverty and that ethnic disproportionality in special education is in large measure an artefact of the effects of poverty. However, the evidence suggests that where poverty makes any contribution to explaining disproportionality, its effect is primarily to magnify already existing racial disparities.*

6. *There is an extensive literature on how schools can prevent underachievement and failure at the school level, thus obviating the need for special education placement.*

7. *There is clear international evidence of a gender imbalance in the incidence of disabilities, special education enrolments and academic achievement.*

8. *Since the 1960s, the overall male to female ratio in special education has been between 2:1 and 3:1.*

9. *Some writers portray the gender imbalance as reflecting either or both an over-identification of males and an under-identification of girls.*

10. *In addressing the question of the over-representation of males in special education and the corollary phenomenon of more underachievement among boys, a range of reasons have been advanced. These include:*
    a. *biological factors*
    b. *unacceptable behaviour patterns*

    c. *peer influences*

    d. *learning strategies*

    e. *under-identification of girls*

    f. *school factors*

    g. *ethnicity*

    h. *students' age*

11. *Educators should recognise that, in general, boys are biologically at higher risk than girls for certain disabilities and should accommodate their teaching to take any associated learning difficulties into account.*

12. *Poverty has a negative impact on child development and is associated with a higher prevalence of some disabilities.*

13. *In the case of students whose special educational needs are more clearly associated with environmental factors, schools should carefully evaluate their policies and procedures to deal with these factors.*

14. *Schools and those responsible for assessing students' needs for special support should re-examine their criteria to ensure that problems that girls may have are not overlooked.*

CHAPTER SIX

DEVELOPMENTS IN NEUROSCIENCE

The brain, with its 100 billion nerve cells, is the seat of our mental faculties, regulating our bodily functions, as well as performing such higher functions as language, reasoning, and memory (OECD, 2007).

The burgeoning and highly promising field of neuroscience must be considered here, albeit briefly. For more in-depth explanations of neurobiology, see the National Institute of Neurological Disorders and Stroke, Stein (2012), Hudson, et al. (2007), and Fischer (2009).

This chapter will outline the architecture of the brain and the functions of its various regions, the executive system, the relationships between emotions and the brain, the brain and disabilities, and brain differences between the sexes.

6.1   The Architecture Of The Brain

Here is a brief summary of the ' architecture' of the brain and the functions of its various components:

The hindbrain comprises the upper part of the spinal cord, the brain stem and the cerebellum, or little brain, as it is sometimes called. The latter is responsible for learned rote movements, such as playing the piano or hitting a ball, skills that require the smooth coordination of movement.

Above the hindbrain is the midbrain, which controls some reflex actions and is part of the circuit responsible for voluntary movements.

The forebrain, or frontal lobes, comprise the largest and most highly developed part of the brain and consist mainly of the cerebrum, which is the home of our intellectual activities – our memories, our executive system (see below) our imagination, our reasoning, and our thinking. The Broca's area, located in these lobes, is important for the transformation of thoughts into speech and language. The cerebrum is split into two hemispheres, which, although they are joined and communicate with each other, have different specialisations. The left hemisphere seems to be responsible for forming words, while the right hemisphere seems to control many abstract reasoning skills, as well as visuo-spatial analysis, emotional sensitivity and expression, and non-verbal communication. It must be noted, however

that these differences are not absolute and that females have less marked hemispheric specialisation, with more communication between the two hemispheres.

In the rear portion of the frontal lobe is a motor area, which helps control voluntary movement.

The parietal lobes are responsible for integrating sensory information, linking language to memory, and determining spatial sense and navigation. The forward part of these lobes contains the sensory areas, which receive information about temperature, taste, touch, and movement from the rest of the body.

The occipital lobes process images from the eyes and link them with images stored in memory.

The temporal lobes, located under the parietal and frontal lobes, have several functions. The top part processes information received from the ears, the bottom part has a crucial role in forming and retrieving memories, while other parts seem to integrate memories and the sensations of touch, sight, sound, smell and taste.

The limbic system is a complex set of structures that lies on both sides of the thalamus, just under the cerebrum. It includes the hypothalamus, the hippocampus, and the amygdala. It appears to be primarily responsible for our emotional life, and has a lot to do with the formation of memories. For example, the hippocampus sends memories out to the appropriate part of the cerebral hemispheres for long-term storage and retrieval when necessary.

The basal ganglia is responsible for initiating and integrating movements.

Clearly, if for any reason any components of the brain are not functioning optimally, a person's capacity to learn will be affected. These reasons could be genetic or environmental. Research is increasingly helping us to understand the underlying causes, suggesting ways of preventing or remediating them by targeting each learner's strengths and weaknesses.

Neuroscience is giving us fruitful leads to follow, a situation that will undoubtedly improve in the future.

We now know that the developing brain is incredibly plastic and adaptable so that neighbouring and connected parts of the brain are able to assume some or most of the functions of damaged or malfunctioning areas (depending on the age of the person and the degree of damage). It does this by strengthening very weak pre-existing connections among the synapses in the brain and by making new connections to

surviving structures, as well as by weakening or eliminating other connections through 'pruning'. This process of rewiring is most active in the first several weeks after an injury.

We also know an increasing amount about two related principles of brain development, namely that 'neurons that fire together, wire together', and 'use it or lose it'. The first of these refers to the synapses between two neurons being strengthened if frequent connections are made. The second recognises that the main function of a neuron is to connect with other neurons, either close by or at greater distances; unless this happens, it will be removed (Stein, 2012).

Finally, we also know that there are sensitive periods when certain types are learning are optimal, when the brain is primed to engage with certain types of stimuli. For example, for sensory stimuli such as speech sounds and for certain emotional and language experiences, there are relatively tight sensitive periods – hence the importance providing appropriate experiences in early intervention (OECD, 2007). But there is not one critical period. Different parts of the brain have different critical periods and they last for different length of time. For example, critical periods for higher thinking and control functions can extend well into the late teens and early twenties (Merzenich, 2012).

6.2   The Executive System

The executive system plays a critical role in problem solving. It is goal-oriented and it consciously controls, edits, plans, directs, and monitors our behaviour. In a word, it is responsible for our metacognition. These executive functions are located in the brain's left frontal lobe and prefrontal cortex. The executive system comprises a number of components, usually identified as the ability to (a) formulate a solution prior to carrying it out, (b) change one's actions in response to an external stimulus, (c) restrain oneself from performing an action, (d) retain and manipulate information relevant to the current situation in memory so that it can be used immediately, (e) spontaneously produce solutions in response to a novel situation, and (f) analyse one's own behaviour and modify it in response to the current situation (White, 2013; Miyake et al., 2000).

The executive system carries out its functions by receiving messages from our 'motivational headquarters'. In turn, the executive system can activate our motivations. It also receives information in the form of feedback provided by external

sources such as educators and from our own evaluations of our behaviours Perhaps most important of all, it directs our selection of strategies. It also monitors and regulates our attention. The executive system is increasingly important as development proceeds.

Various studies have shown that there is a positive relationship between executive functioning skills and literacy acquisition in English (Altemeier et al., 2008; Welsh et al., 2010) and Chinese (Chung & McBride-Chang, 2011). There is some evidence, too, that Asian children, particularly from Korean and Chinese societies, are better than Western children in executive functioning, at least in preschool years (Sabbagh et al., 2006; Oh & Lewis, 2008).

6.3   Emotions and the Brain

Emotions are all part of the brain's ability to process information and regulate our behaviour. According to some writers, recent advances in the neurosciences of emotions are highlighting the connections between cognition and emotion that have the potential to revolutionise our understanding of learning. They argue that our brains still bear evidence of their original purpose of managing our bodies and minds in the service of living happily in the world with other people. Thus, emotions help to regulate our behaviour, directing our reasoning into knowledge that is relevant to a current situation or problem; they play a critical role in our learning (Immordino-Yang & Damasio, 2007).

How we feel about something can be just as important in determining what we remember as what we think about it. This is especially so with children whose brain regions that process emotions (the limbic area) are generally more advanced than the regions responsible for thinking (the prefrontal cortex) (Sousa, 2009).

Further, when we feel positively about something, the chemicals endorphins and dopamine are activated. Endorphins elicit feelings of euphoria, while the neurotransmitter, dopamine, stimulates the prefrontal cortex, keeping us attentive and increasing the likelihood of remembering an experience. On the other hand, negative feelings release the hormone cortisol, which puts the brain into survival mode so that it can deal with the source of stress, which in turn distracts it from the task in hand. If a learner is stressed, information is impeded from passing through the affective filter in the amygdalae, which are part of the limbic system located in the brain's temporal lobe (Sousa, 2009; Willis, 2007). Emotion has the ability to enhance or impair the

amygdala's long-term memory storage. Thus, the 'Goldilocks principle' applies: not too much and not too little emotion will facilitate arousal and, hence, memory.

6.4   The Brain and Disabilities

Much has been learned about the relationship between the brain and disabilities as a result of the development of brain imaging techniques such as electroencephalagrams (EEG), positron emission tomography (PET), brain electrical activity mapping (BEAM), and Magnetic Resonance Imaging (MRI). Much, too, has been learned from experiments on animals, especially rats, as well as on humans.

Research is increasingly confirming that neurological factors contribute to a range of disabilities, as a result of either significant or minimal central nervous system dysfunction. Some of these will be summarised in this section.

Traumatic brain injury (TBI). According to Lajiness-O'Neill and Erdodi (2011), TBI typically impacts on cognitive and neurobehavioural functioning. Individuals with TBI experience a range of cognitive deficits, including varying degrees of impairment in attention, memory, speed of information processing, communication, executive functioning, affective stability and social functioning.

Learning disabilities. A recent review by Pullen et al. (2011) outlined research on dyslexia, which shows evidence of an unusual structure of one region of the brain – the 'planum temporale'. In approximately 70% of the normal brains this area is typically assymetrical, whereas individuals with dyslexia it is mostly symmetrical. Since the planum temporale is important to language, some writers suggest that this unusual symmetry must be related to the occurrence of dyslexia. However, Pullen et al. urge caution in drawing this conclusion, noting the limitations of technologies to measure brain physiology and electrical activity in individuals with dyslexia.

Attention deficit/Hyperactivity disorder (ADHD). In a review of the literature, Rooney (2011) notes that brain imaging research has provided 'suggestive evidence' that the pre-frontal cortex, frontal lobes, basal ganglia cerebellum, corpus callosum, and right parietal regions of the brain are involved in the occurrence of ADHD.

Emotional and behavioural disorders. Among the biological and social factors implicated in emotional and behavioural disorders is TBI. As noted by Kauffman and Landrum (2009), studies of children who have experienced TBI show evidence of associated emotional and behavioural effects, including failure to comprehend

humour or read social cues; becoming easily tired, angered or frustrated; irritability; extreme mood swings; and even depression.

6.5   Brain Differences Between the Sexes

Given the marked sex differences in the incidence of many disabilities, as noted in Chapter Five, it is relevant to give consideration to brain differences between the sexes as suggesting possible causes.

Elsewhere, the writer has reported on research showing sex differences at all levels of the nervous system, noting that it is becoming increasingly clear that sex matters in the development and functioning of the brain (Mitchell, in preparation). As one researcher puts it, 'The picture of brain organization … is of two complex mosaics – one male and one female – that are similar in many respects but very different in others' (Witelson, 1991). As expressed by one writer (Cahill, 2006), this is not surprising:

It seems incontrovertible that males and females evolved under some similar, and some very different pressures. We should therefore expect, a priori, that their brain organization will be both similar in some respects, and markedly different in others (p.4).

This is a complex, promising – and controversial – topic. As summarised by Mitchell (in preparation) some of the key research findings are as follows:

- *Total brain size* is often reported to be 8-10% larger in males (Goldstein et al., 2001). However, at this stage of our knowledge, this difference should not be interpreted as implying any sort of functional advantage or disadvantage (Lenroot et al., 2007).

- There is evidence that women have a larger *corpus collosum* – the area of the brain responsible for the transfer of information from one brain hemisphere to the other – relative to cranial capacity than do men. (Note that this and other studies of the relative sizes of regions of the brain adjust for total brain size)(Johnson et al., 1994).

- Extensive evidence shows sex differences in the anatomical structure, neurochemical make-up and reactivity to stress of the *hippocampus*, a region of the brain associated with learning and memory. MRI studies show that the hippocampus is larger in women than in men. As well, there is evidence for sex differences in many of the *neurotransmitter systems* within the hippocampus (Cahill, 2006).

- *The amygdala* – which plays a significant role in memory for emotional events – is significantly larger in men than women. The left amygdala seems to play the more important role in women and the right amygdala in men (Cahill, 2006).

- A recent – controversial – study carried out at the University of Pennsylvania investigated connections in the brain among 949 8–22 year old individuals. The researchers found greater neural connectivity from front to back and within one *hemisphere* in males. To the researchers, this suggested that male brains are structured to facilitate connectivity between perception and coordinated action. In contrast, in females, the connectivity between the left and right hemispheres was stronger, suggesting that their brains facilitate emotional processing and the ability to infer others' intentions in social interactions. These differences first became apparent at about the age of 13 years and became more pronounced in adolescence and young adults (Ingalhalikar et al., 2013). According to some writers, too much should not be made of this research. Some point out that although the differences are statistically significant, they are actually not substantive and that they portray average differences with a lot of overlap. Also, the Pennsylvania researchers did not in fact look at behavioural differences between the sexes – but only guessed at how any wiring differences might be related to behavioural differences between the sexes (http://www.wired.com/2013/12/getting-in-a-tangle-over-men-and-womens-brain-wiring/).

- Using MRI, a team of researchers in the US and Canada have found robust male/female differences in the shapes of brain development trajectories, with total *cerebral volume* peaking at age 10.5 years in females and 14.5 years in males (Lenroot et al., 2007). A recent study carried out by these researchers at the US's National Institutes of Health (NIH) concluded that the most profound difference between girls and boys is not in their brain structures, *per se*, but rather in the trajectories of development of the various brain regions (Lenroot et al., 2007). While the differences between the brains of adult women compared with adult men are small, this is not the case among children. In fact, differences between girls and boys, in terms of brain development, are much larger than differences between them in terms of height. Thus, the NIH study found that different regions of the brain develop in a different sequence, and at a different tempo, in girls compared with boys. When the "inflection point" (roughly the halfway point in brain development) is considered,

girls reach it just before the age of 11 years, while boys do not reach it until just before age 15 years. Thus, in terms of brain development, a young woman reaches full maturity between 21 and 22 years of age. In contrast, a young man does not reach full maturity, until nearly 30 years of age.

- A University of Iowa study shows just how complex the relationships between brain structure, behaviour, and sex/gender can be. These researchers compared the straight gyrus (SG) component of the *ventral frontal cortex* region of 30 adult males and 30 adult females matched for age and IQ. They found that the SGs were proportionately larger in the women than in the men. Since this region of the brain is known to be involved in social cognition and interpersonal judgment, which many studies have shown to be at higher levels in females than males, it was argued that there must be a connection between the SG and these social skills.

- To investigate the relationship between the SG structure and social cognition in children, the Iowa researchers studied 37 boys and 37 girls aged 7 to 17, matched by age and IQ. In contrast to the findings in adults, the SG was slightly smaller in girls than boys. Further, in girls, but not boys, smaller SG volumes significantly correlated with better social perception and higher identification with feminine traits. In both studies, the researchers added another complication. Instead of dividing their subjects by *biological sex*, they also classified them in a test of *psychological gender* in a questionnaire by biological that assesses a person's degree of masculinity vs femininity. They found that in both adults and children, this measure of gender identity also correlated with the SG size. Not surprisingly, the researchers concluded that there is a complex relationship between sex, femininity, social cognition and SG morphology (Wood et al., 2008).

The majority of the regions in the brain that show sex differences also show differences associated with such neuropsychiatric conditions. These regions include the amygdala, hippocampus and the insula. In other words, it is quite possible that the factors leading to the development of sex differences in the brain also play a role in sex-biased neuropsychiatric conditions. Future research could well help us to understand how male and female brains have different predispositions for risk or resilience to such conditions (Bao & Swaab, 2010).

Caution must be exercised in interpreting brain differences such as those just described. For example, is not yet possible to establish whether there is a direct link

between gender differences in various cognitive domains and particular brain differences. It could be argued that the direction of the effect could be either way: brain differences cause the cognitive differences or greater participation in various activities cause the brain differences. Perhaps both explanations have merit and gender differences reflect the interaction between biology and psychosocial influences (Cassidy, 2007).

6.6   Summary

1. *The brain, with its 100 billion nerve cells, is the seat of our mental faculties, regulating our bodily functions, as well as performing such higher functions as language, reasoning, and memory.*

2. *The brain has a complex architecture, with various regions being responsible for various functions.*

3. *If for any reason any components of the brain are not functioning optimally, a person's capacity to learn will be affected. These reasons could be genetic or environmental. Research is increasingly helping us to understand the underlying causes, suggesting ways of preventing or remediating them by targeting each learner's strengths and weaknesses.*

4. *Neuroscience is giving us fruitful leads to follow, a situation that will undoubtedly improve in the future.*

5. *We know an increasing amount about two related principles of brain development, namely that 'neurons that fire together, wire together', and 'use it or lose it'.*

6. *There are sensitive periods when certain types are learning are optimal.*

7. *The executive system plays a critical role in problem solving. It is goal-oriented and it consciously controls, edits, plans, directs, and monitors our behaviour.*

8. *Recent advances in the neurosciences of emotions are highlighting the connections between cognition and emotion that have the potential to revolutionise our understanding of learning.*

9. *Research is increasingly confirming that neurological factors contribute to a range of disabilities, as a result of either significant or minimal central nervous system dysfunction.*

10. *It is becoming increasingly clear that sex matters in the development and functioning of the brain.*

11. *It is possible that brain differences cause the cognitive differences or greater participation in various activities cause the brain differences.*

CHAPTER SEVEN

RESPONSE TO INTERVENTION AND GRADUATED RESPONSE

An alternative to categorisations such as those outlined in the previous chapter is the Response to Intervention (RtI) model. In brief, this involves (a) tracking the rate of growth in core subjects for all students in the class; (b) identifying students whose levels and rates of performance are significantly below their peers; and (c) systematically assessing the impact of evidence–based teaching adaptations on their achievement (Shaddock et al., 2009). Above all, RtI is an approach focused on outcomes and on the evaluation of intervention; it thus integrates student assessment and instructional intervention. The RtI framework provides a system for delivering interventions of increasing intensity. Data based decision-making is the essence of good RtI practice.

RtI can be considered as being roughly equivalent to other approaches, known variously as 'student progress monitoring' and 'data-based decision making within a problem-solving framework' (NASDSE and CASE, 2006).

RtI is widely used in the US and Canada, but the writer was unable to find any significant reference to its use outside North America. However, RtI bears a close resemblance to the 'Graduated Response' model of intervention in England, as outlined in the 2001 Code of Practice. This will be summarised later in this chapter.

The material relating to RtI is synthesised from Ervin (2010), Gerber (2010), the National Association of State Directors of Special Education and the Council of Administrators of Special Education (2006), the National Center on Response to Intervention (2010), Wikipedia (2010), and Yell and Walker (2010).

7.1   Background

In the US, RtI has a statutory and regulatory foundation. Thus, the re-authorisation of IDEA in 2004 proscribed the identification of a child with a specific learning difficulty on the basis of a severe discrepancy between achievement and intellectual ability. Instead, it favoured a process in which the child 'responds to scientific, research-based intervention' [P.L. 108-446, □614(b)(6)(B)]. Further, subsequent regulations required that prior to being referred for classification as a child with a specific learning disability, he or she should have been provided with 'appropriate high quality, research-based instruction in regular education settings',

and that 'data-based documentation of repeated assessments of achievement at reasonable intervals, reflecting formal assessment of student progress during instruction' be provided. Only then, if the child has not made adequate progress after an appropriate period of time, could the child be referred for an evaluation to determine if special education should be provided.

RtI builds on two recommendations made by the President's Commission on Excellence in Special Education (2002):

- Consider children with disabilities as general education children first…In instruction, the systems must work together to provide effective teaching.
- Embrace a model of prevention not a model of failure. The current model guiding special education focuses on waiting for a child to fail, not on early intervention to prevent failure. Reforms must move the system toward early identification and swift intervention, using scientifically based instruction and teaching methods (p.9).

The Commission also specifically recommended the use of an RtI model: Implement models during the identification and assessment process that are based on response to intervention and progress monitoring. Use data from these processes to assess progress in children who receive special education services (p.21).

It would seem, too, that the development of RtI was provoked, at least in part, by concern that over 50% of IDEA funding was being spent in learning disability programmes, with around 70% of special education activities being related to learning disability cases (Batsche, 2006). However, it must be emphasised that RtI is not limited to students with learning disabilities, but is intended for all those who are at risk for school failure, as well as students with identified disabilities. It is increasingly being seen as an approach to adapting instruction to meet the needs of student who are having problems learning in the general curriculum. Thus, 'the purpose of an RtI system, which combines evidence-based instruction, increasing intensity of academic and behavioral supports, and progress monitoring, is to increase the number of at risk students whose needs are addressed so that they may learn successfully in general education before their problems become so severe that they need special education services.' (Yell et al. 2011, p.74)

7.2   Definition of RtI

The National Center on Response to Intervention (2010) in the US defines RtI as follows:

> Response to intervention integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavior problems. With RTI, schools identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust the intensity and nature of those interventions depending on a student's responsiveness, and identify students with learning disabilities or other disabilities (p.2).

Another definition is provided by the National Association of State Directors of Special Education and the Council of Administrators of Special Education (2006):

> RtI is the practice of providing high-quality instruction and interventions matched to student need, monitoring progress frequently to make decisions about changes in instruction or goals and applying child response data to important educational decisions. RtI should be used for making decisions about general, compensatory and special education, creating a well-integrated system of instruction/intervention guided by child outcome data (p.2).

7.3 Components of RtI

According to the National Association of State Directors of Special Education and the Council of Administrators of Special Education (2006), there are three key components of RtI:

High-quality instruction/intervention, defined as instruction or intervention matched to student need that has been demonstrated through scientific research and practice to produce high learning rates for most students. Individual responses are assessed in RtI and modifications to instruction/intervention or goals are made depending on results with individual students.

Learning rate and level of performance are the primary sources of information used in ongoing decision-making. Learning rate refers to a student's growth in achievement or behaviour competencies over time compared to prior levels of performance and peer growth rates. Level of performance refers to a student's relative standing on some dimension of achievement/performance compared to expected performance (either criterion- or norm-referenced). Decisions about the use of more or less intense interventions are made using information on learning rate and level. More intense interventions may occur in general education classrooms or pull-out programmes supported by general, compensatory or special education funding.

Important educational decisions about the intensity and the likely duration of interventions are based on an individual student's response to instruction across multiple tiers of intervention. Decisions about the necessity of more intense

interventions, including eligibility for special education, exit from special education or other services, are informed by data on learning rate and level.

What follows is a more detailed explanation of the 'multiple tiers of intervention', referred to in the last of the above points, and sometimes described as 'levels'. Most writers identify three tiers, but sometimes four are described. Each tier provides progressively more intense and individualised intervention, with the aim of preventing, as far as possible, serious and continuing learning difficulties.

Tier I: core classroom instruction. Sometimes referred to as 'primary prevention', this is the foundation of RtI and contains the core curriculum (both academic and behavioral). The core curriculum should be effective for approximately 80% -85% of the students. If a significant number of students are not successful in the core curriculum, RtI suggests that instructional variables, curricular variables and structural variables (e.g., building schedules) should be examined to determine where instruction needs to be strengthened, while at the same time addressing the learning needs of the students not being successful. Tier I interventions focus on in-class support and group interventions for all students and are characterised as preventive and proactive. The teaching programme should comprise evidence-based instruction and curriculum and should be the responsibility of the general education teacher. At this level, there should be careful monitoring of all students' progress and universal screening to identify at-risk students.

Tier II: supplemental instruction. Sometimes referred to as 'secondary prevention', interventions at this level are of moderate intensity and serve approximately 15-20% of students (some writers go as high as 30%) who have been identified as having continuing difficulties and who have not responded to normal instruction. Interventions at this level comprise targeted small group interventions (two to four students) for about an additional hour per week. Instruction is both more extensive and intensive than at Tier I and there should be weekly progress monitoring of target skills to ensure adequate progress (and that the intervention is working). Students at Tier II continue to receive Tier I instruction in addition to Tier II interventions. Based on performance data, students move fluidly between Tier I and Tier II. This tier is still the responsibility of the general education teacher, but with the assistance of a relevant specialist.

Tier III: Instruction for intensive intervention. Sometimes referred to as 'tertiary prevention', this tier serves approximately 5-10% (some say as few as 2%) of students and is targeted at those with extreme difficulties in academic, social and/or behavioural domains who have not responded adequately to Tier I and Tier II efforts. The goal is remediation of existing problems and the prevention of more severe problems. Students at this tier receive intensive, individual and/or small group interventions for an additional hour (two thirty minute sessions) per day, with daily progress monitoring of critical skills. Special education programmes are designed to supplement and support Tier I and Tier III instruction. At this level, a trained specialist would be involved. Once students reach target skills levels, the intensity and/or level of support is adjusted. These students also move fluidly among and between the tiers. If Tier III is not successful, a student is considered for the first time in RtI as being potentially disabled.

These three Tiers are sometimes referred to as 'universal' (Tier I), 'targeted group' (Tier II), and 'individual' (Tier III).

A caveat should be entered at this point: there should be a mechanism through which students with severe or significant academic, social-emotional of behavioural problems which would allow them to be 'triaged' directly into Tier III, rather than requiring them to go through Tiers I and II. This procedure should be used with caution, however.

Figure 5.1 provides a graphic depiction of this three-tier model (National Association of State Directors of Special Education and the Council of Administrators of Special Education, 2006):

ACADEMIC SYSTEMS

TIER 3 *Intensive, Individual Interventions*
- Individual students
- Assessment-based
- High intensity
- Of longer duration

TIER 2 *Targeted Group Interventions*
- Some students (at-risk)
- High efficiency
- Rapid response

TIER 1 *Core Instructional Interventions*
- All students
- Preventive, proactive

BEHAVIORAL SYSTEMS

TIER 3 *Intensive, Individual Interventions*
- Individual students
- Assessment-based
- Intense, durable procedures

TIER 2 *Targeted Group Interventions*
- Some students (at-risk)
- High efficiency
- Rapid response

TIER 1 *Core Instructional Interventions*
- All settings, all students
- Preventive, proactive

CIRCA 5%   CIRCA 5%
CIRCA 15%   CIRCA 15%
CIRCA 80%   CIRCA 80%

Students

Figure 5.1. The three-tier model of Response to Intervention

7.4 Implications of Implementing RtI

For RtI to be effectively implemented, several conditions have to be met:

a. Effective assessment procedures – for screening, diagnosis and progress monitoring-have to be put in place (see also Chapter Eleven of this review).

b. Evidence-based teaching strategies should be employed (see also Chapter Twelve of this review). A student cannot be determined to have disability , and thus be eligible for special education services, if his or her problems were due to a lack of appropriate instruction (Yell & Walker, 2010)

c. A structured, systematic problem-solving process should be implemented;

d. It is important to see RtI as a flexible and fluid model, based on student need and not premised on particular labels or special education programmes.

e. There should be school-wide responsibility for all students, including SWSEN.

f. Teachers, principals and specialists should receive appropriate pre-service training and in-service professional development on RtI (see also Chapter Eighteen of this review). The changes to assessment eligibility criteria present big challenges to school administrators and teachers, which requires extensive professional development (Yell & Walker, 2010).

g. Adequate resources need to be made available.

h. Parents should be involved in the decision-making processes in RtI (see also Chapter Twenty-three of this review).

i. Exemplar RtI models should be developed before RtI is fully implemented.

j. It takes time and can be costly to implement; Batsche (2006), for example, pointed out that evidence from Iowa and Minnesota suggested that it takes 4-6 years (or more) to complete full implementation, including policy and regulatory change, staff development, and development of school/district-based procedures.

k. Consideration must be given to teachers' variability in their 'capacity to respond to differences in *students'* response to instruction' (Gerber, 2005, p.215).

7.5 Research into RtI

The research staus of RtI is well summarised by Madalaine & Wheldall (2009), who pointed out that 'there is an enormous amount of support for RtI in the literature but, while it makes very good conceptual sense, there is relatively little scientific

evidence about its effectiveness as yet in comparison to other models of identification and remediation'(p.9). In a similar vein, O'Connor & Sanchez (2011) claimed that 'we know little about whether RtI reduces the severity of LD or whether it identifies students with LD more reliably than earlier practices' (p. 123). They concluded that 'We are unconvinced that responsiveness to carefully designed and implemented intervention is the best way to determine elibility for disability. As Kavale & Spaulding (2008) put it, RtI remains an experimental process and more research is needed. One of the problems in determining its worth is that the details for its implementation – such as criteria for risk, what constitutes growth in interventions, indicators for students no longer at risk, and the way that interventions are determined – vary considerably from place to place and researcher to researcher (O'Connor & Sanchez, 2011).

However, what research has been reported is encouraging. For example, VanDerHeyden et al. (2007) found that students responded positively to RtI and that African-American students responded more quickly than other ethnic groups. They also reported a significant reduction in the rate of placement in LD programmes. Similarly positive findings have been reported by Marston (2001), who attributed RtI to a drop over a three-year period in the percent of African-American students placed in special education from 67% to 55% (considering that 45% of the student population was comprised of African-American students). Like VanDerHeyden et al. (2007), Marston (2001) also reported a 40% decrease in special education placements for LD programs. He attributed this to the use of RtI to determine eligibility, with students appearing to get the help needed in skill development with the three-tier model of prevention and intervention.

A recent US study investigated the perceptions of 211 special education teachers of the barriers to and benefits of RtI (Werts et al., 2014). The main barriers identified included gaps in knowledge, faculty attitudes, and lack of resources. The benefits included improved instruction through the use of assessment and data, early intervention and the use of differentiated instruction. In other studies, teachers and administrators noted a need for improved resources, more opportunities for professional development, collaboration, collegiality, leadership, and clear directions regarding the implementation of RtI (Pyle, 2011, Sanosti et al., 2011; Fuchs et al., 2012).

It must be noted that decision-making in implementing the RtI model is characterised by variability in data relating to criteria for risk and for what constitutes growth in interventions, indicators for students being no longer at risk, and determinations for type and content of interventions (O'Connor & Sanchez, 2011).

7.6   The Graduated Response Model in England

There are marked similarities between RtI in the US and the system of 'Graduated Response' in England, particularly with regard to the notion of three tiers and a concern for monitoring student outcomes. As outlined in the *Code of Practice* (Department for Education and Skills, 2001):

> In order to help children who have special educational needs, schools in the primary phase1[1] should adopt a graduated response that encompasses an array of strategies. This approach recognises that there is a continuum of special educational needs and, when necessary, brings increasing specialist expertise to bear on the difficulties that a child may be experiencing. However the school should, other than in exceptional cases, make full use of all available classroom and school resources before expecting to call upon outside resources (p.48).

As in Tier I in the RtI, in the Graduated Response approach it was assumed that classroom teachers should do all they can to provide an appropriate education for all their students through differentiated teaching, with additional action being taken only for those whose progress continues to cause concern. In addition to the assessment data that all schools record for all students, the pupil record for a SWSEN should include more detailed information about his or her progress and behaviour. This record was intended to provide *'information about areas where a child is not progressing satisfactorily, even though the teaching style has been differentiated' (p.51)*. From this, the teacher may feel that that his or her teaching strategies are not resulting in the child learning as effectively as possible and will consult with the school's Special Education Needs Coordinator (SENCO) to review the strategies currently being used. Following this consultation, it may be determined that the child requires help over and above what can be provided by the teacher. In that case, consideration may then be given to helping the child through *School Action* (roughly equivalent to Tier II in the RtI).

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[1] Similar Graduated Response systems were also in place for early education settings and the secondary sector.

In *School Action* [1]the class teacher or the SENCO was to identify a child as having special education needs and 'provide interventions that are additional to or different from those provided as part of the school's usual differentiated curriculum' (p.52, emphasis in the original). The triggers for School Action include (a) the child making little or no progress even when teaching approaches are targeted at a his or her areas of weakness, and (b) the child presenting persistent emotional or behavioural difficulties which are not ameliorated by the behaviour management techniques usually employed in the school. The SENCO and the child's class teacher then decide on the nature of the intervention needed to help the child to progress. This may include the deployment of extra staff to enable individual tuition, the provision of different learning materials or special equipment, and staff training, all to be recorded in an IEP.

Should further help be required, a request for external services is likely, through what is referred to as School Action Plus. This would follow a decision taken by the SENCO and colleagues, in consultation with parents, at a meeting to review the child's IEP. The triggers for School Action Plus usually involve the child, despite receiving an individualised programme and concentrated support, (a) continues to make little or no progress in specific areas, (b) continues to work at National Curriculum levels substantially below that expected of children of a similar age, and (c) has emotional or behavioural difficulties which substantially interfere with the child's own learning and that of the class group. This review would result in a new IEP which sets out fresh strategies for supporting the child' progress, which are usually implemented in the normal classroom setting.

The next step in the process is for the school to request a statutory assessment. This requires evidence that the child has 'demonstrated significant cause for concern' and that 'any strategy or programme implemented … has been continued for a reasonable period of time without success and that alternatives have been tried…' (p.56).

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[1] Note: Schools are expected to transfer children from School Action/School Action Plus to SEN support by the end of the Spring term 2015 and for all to be phased out by September 2015. Similarly, Statements are being phased out and replaced by Education, Health and Care (EHC) needs assessment and plans designed to bring child's education, health and social care needs into a single, legal document. (See Department for Education (2014)).

An Ofsted (2006) survey found serious weaknesses in schools and local authorities' interpretation and operation of the graduated response approach. It considered that the provision of additional resources to students, such as support from teaching assistants, did not ensure good quality intervention or adequate progress. The survey findings showed that key factors for good progress were: the involvement of a specialist teacher; good assessment; work tailored to challenge pupils sufficiently; and commitment from school leaders to ensure good progress for all pupils. Ofsted also felt that students with behavioural, emotional and social difficulties were disadvantaged in that they were the least likely to receive effective support and the most likely to receive support too late.

7.7 Summary

1. *Response to Intervention (RtI) focuses on student outcomes and the evaluation of intervention.*

2. *In the US, RtI has a statutory and regulatory foundation, IDEA 2004 favouring a process in which the child 'responds to scientific, research-based intervention'. This arose from a recommendation of the President's Commission on Excellence in Special Education in 2002.*

3. *The National Center on Response to Intervention in the US defines RtI as '[The integration] of assessment and intervention within a multi-level prevention system to maximise student achievement and to reduce behavior problems. With RtI, schools identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust the intensity and nature of those interventions depending on a student's responsiveness, and identify students with learning disabilities'.*

4. *Important educational decisions about the intensity and the likely duration of interventions are based on an individual student's response to instruction across multiple (usually three) tiers of intervention:*

   a. *Tier I: core classroom instruction. This contains the core curriculum (both academic and behavioural), which should be effective for approximately 80% -85% of the students. If a significant number of students are not successful in the core curriculum, RtI suggests that instructional variables, curricular variables and structural variables (e.g., building schedules) should be examined to determine where instruction needs to be strengthened, while at*

the same time addressing the learning needs of the students not being successful. The teaching programme should comprise evidence-based instruction and curriculum and should be the responsibility of the general education teacher.

b. *Tier II: supplemental (or secondary) instruction. Interventions serve approximately 15-20% of students (some writers go as high as 30%) who have been identified as having continuing difficulties and who have not responded to normal instruction. This tier is still the responsibility of the general education teacher, but with the assistance of a relevant specialist.*

c. *Tier III: Instruction for intensive intervention (tertiary). This tier serves approximately 5-10% (some say as few as 2%) of students and is targeted at those with extreme difficulties in academic, social and/or behavioural domains who have not responded adequately to Tier I and Tier II efforts. Students at this tier receive intensive, individual and/or small group interventions for an additional hour per day, with daily progress monitoring of critical skills. At this level a trained specialist would be involved. If Tier III is not successful, a student is considered for the first time in RtI as being potentially disabled.*

5. *For RtI to be effectively implemented, several conditions have to be met. These include:*

- *effective assessment procedures should be in place;*
- *evidence-based teaching strategies should be employed;*
- *a structured, systematic problem-solving process should be implemented;*
- *teachers, principals and specialists should receive appropriate pre-service training and in-service professional development on RtI;*
- *adequate resources need to be made available; and*
- *parents should be involved in the decision-making processes.*

6. *Although there is relatively little evidence as to the effectiveness of RtI, what research has been reported is encouraging.*

7. *In England, the system of 'Graduated Response' bears a close similarity to RtI. This approach (being phased out in 2015) recognises that there is a continuum of special educational needs and brings increasing specialist expertise to bear. The first level assumes that the classroom teachers do all they can do to provide an appropriate*

education for their students through differentiated teaching. If this is not succeeding, the second level, 'School Action' is implemented. This involves providing interventions that are additional to or different from those provided as part of the school's differentiated curriculum. Should further help be required, a request for external services is likely, through what is referred to as 'School Action Plus'. The next step in the process is for the school to request a statutory assessment.

CHAPTER EIGHT

EDUCATIONAL CONTEXTS[1]

Policies and practices relating to the education of SWSEN must take account of the general educational context, especially those aspects that are derived from such neoliberal philosophies as marketisation, decentralisation/devolution, choice, competition, and the setting of accountability criteria such as standards and high-stakes testing.

According to some writers, the broader educational contexts provided by neo-liberal market philosophies, which have characterised education reforms in many countries in the past couple of decades, contain many elements that tend to work against equity, the valuing of diversity and inclusive education (Ballard, 2012; Blackmore, 2000; Dudley-Marling & Baker, 2012; Dyson, 2005; Meijer et al., 2003; Mitchell, 1996, and in preparation; Ridell, 2012; Riddell et al., 2006; Saggers et al., 2012; and Thurlow, 2000).

This chapter will outline (a) the general principles of neoliberalism, (b) contestability and competition, (c) decentralisation/devolution, (d) parental choice, (e) accountability, (f) standards-based reforms, and (g) leadership.

8.1   Neoliberalism[2]

The Marxist geographer, David Harvey (2005), has defined neoliberalism in the following terms:

> Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices. …
> Furthermore, if markets do not exist (in areas such as land, water, education, health care, social security, or environmental pollution) then they must be created, by state action if necessary. But beyond these tasks the state should not venture. State interventions in markets (once created) must be kept to a bare minimum because, according to the theory, the state cannot possibly possess enough information to second-guess market signals (prices) and

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[1] Much of this chapter draws upon Mitchell (2004a, 2004b, 2005, and in preparation).

[2] See also the earlier discussion of libertarianism in Chapter Two, Section 2.2.

> because powerful interest groups will inevitably distort and bias state interventions (particularly in democracies) for their own benefit (p.2).

Harvey goes on to note that

> Deregulation, privatization, and withdrawal of the state from many areas of social provision have been all too common. Almost all states, from those newly minted after the collapse of the Soviet Union to old-style social democracies and welfare states such as New Zealand and Sweden, have embraced, sometimes voluntarily and in other instances in response to coercive pressures, some version of neoliberal theory and adjusted at least some policies and practices accordingly (p.3).

and, further, that

> Neoliberalism has, in short, become hegemonic as a mode of discourse. It has pervasive effects on ways of thought to the point where it has become incorporated into the common-sense way many of us interpret, live in, and understand the world…It holds that the social good will be maximized by maximizing the reach and frequency of market transactions, and it seeks to bring all human action into the domain of the market (p.3).

Neoliberalism originated in Austria in the 1940s when three theorists separately argued against collective politics (Jones, 2012). These were Karl Popper, a philosopher, who criticised thinkers who valued the collective over the individual, Ludwig von Mises (1962), an economist, who asserted that no bureaucracy had the means to restrain itself, and Friedrich Hayek (1979), another economist, who said that central planning was impossible, because no person, however clever, knew what people wanted. To these writers, the only legitimate purpose of the state is to safeguard individual liberty, as well as private property rights (Thorsen & Lie, 2006). These views had their progenitors in the classical liberalism advocated by Adam Smith, and his conception of man and society.

More recently, Milton Friedman (1980) and his colleagues from the University of Chicago advocated the liberation of the market from the state as the best way to ensure both freedom and economic growth. They argued for a 'middle way' between collectivism and the excesses of 19th-century laissez-faire liberalism. They pushed for market competition, privatisation, deregulation and a 'roll-back of the State' as being the optimal ways of organising exchanges of goods and services. Further (and of particular relevance to the present review), since individuals are seen as being solely responsible for the consequences of the choices and decisions they freely make, instances of inequality and glaring social injustice are morally acceptable, to the degree in which they could be seen as the result of freely made decisions (Nozick,

1974; Hayek, 1979). In a similar vein, as pointed out by Small (2009), some neoliberal thinkers even question the view that inequality is undesirable and that equality is an inherent social good (Tooley 1996, White, 1994).

Neoliberalism came to dominate the way in which many countries organised their economies and their social policies (Ballard, 2012; Krugman, 2009). Thus, as Small (2009) expressed it, 'competitive, individualised models of social and economic organisation [replaced] social democratic ones that sought… to foster more cooperative ways of operating' (pp.2-3). The neoliberal approach came to be seen as corresponding with the essential nature of humans, who were defined as autonomous individuals who were 'rational utility maximisers' (Codd, 1999, p.46).

Turning now to neoliberal perspectives on education, a good starting point is Friedman's (1955) position that the most effective way to reform American education was to expose schools to the competitive forces of the free market. Thus, he proposed that vouchers be made available to all parents, arguing that they would provide incentives for schools to be more efficient and effective. Later, Chubb & Moe (1990) concluded that opening up educational markets to competition was both a necessary and sufficient condition for reforming education. Inherent in the positions adopted by both Friedman and fellow economists Chubb & Moe was the notion that 'choice is a panacea' (Chubb & Moe, 1990, p.217). (The issue of choice will be further discussed in Section 8.4.). This view ultimately led to the establishment of charter schools, which function as quasi-market schools according to Whitty et al. (1998), and to high stakes testing (see also Section 8.6 below).

In New Zealand, 1984 saw the rapid introduction of neo-liberal reforms to policies and practices in a number of sectors, not least in education. As noted by Morton (2015), key ideas included reducing the size of state involvement in areas such as health, education and welfare, dramatically reducing costs to the state, and expecting that the market would achieve all this while at the same time improving both quality and efficiency. Thus, 'through the twin forces of competition and individual consumer choice, bad services would be weeded out, good services would flourish, and all consumers would be able to then choose amongst these surviving better services' (Morton, 2015, p.199).

And now to a consideration of neoliberal perspectives on the education of SWSEN. Here, the argument is that 'market-oriented social practices should produce

a surplus of special education providers, beyond state-run schools, to address the needs of parents, who are seen as the 'consumers' of schooling' (Anastasiou & Kauffman 2009, p.210). Thus, '"Bad" schools will close, and the need for schools' economic survival will finally result in more efficient and reponsive special education' (p.210). Similarly, it later became assumed that high stakes testing would motivate teachers and education administrators to provide high quality instruction for all students, including SWSEN.

As will be seen below, neoliberalism has not provided the panacea for improving the quality of education of SWSEN (see, for example, Ballard, 2012, Dudley-Marling & Baker, 2012, and Saggers et al., 2012). Two manifestations of neoliberalism in action will suffice at this point: vouchers and charter schools. Firstly, as noted earlier, it was assumed that if *vouchers* were to be made available to parents, this would provide incentives for schools to be more efficient and effective, thus improving the quality of education available for all children, including SWSEN. As Dudley-Marling & Baker, (2012) point out, however, only a limited number of voucher programmes aimed specifically at SWSEN have been implemented in the US. They cite research that indicates, in general, that there is no clear advantage in academic achievement for students attending private schools with vouchers. Further, in Milwaukee, the evidence has consistently indicated that SWSEN are significantly under-served by the district's voucher programme. For example, while students with disabilities comprised nearly 20% of the public school population in Milwaukee only 1.6% of voucher students had identified disabilities.

Secondly, although *charter schools* in the US have expanded rapidly since the first one opened in Minnesota in 1991, in 2010 they still enrolled fewer than 3% of the total number of students in traditional public schools (Dudley-Marling & Baker, 2012). There is considerable variability in the quality of charter schools in terms of student achievement: they run the gamut from excellent to poor with many in between. This is borne out in a study of student achievement in charter schools by the Center for Education Reform (2010). This longitudinal study, which included over 70% of students enrolled in charter schools in the US, found that 17% of them provided superior education for their students compared to traditional public schools. However, 46% produced achievement scores that were no different from local public schools and 37% produced results that were significantly worse. Of significance for the

present review, Dudley-Marling & Baker (2012) cite evidence that, in charter schools, SWSEN, who are more expensive to educate and who tend to produce lower test scores than students without disabilities, are among the most likely to be excluded, along with English-language learners and students from poor backgrounds. They point to New Orleans as offering a compelling example of the under-representation of students with disabilities in charter schools. Dudley-Marling & Baker claim that the apparent success of New Orleans charter schools can be attributed, at least in part, to the disproportionately low percentage of the most difficult to educate students served by these schools. This has been achieved by high numbers of SWSEN students being suspended for disciplinary reasons. Dudley-Marling & Baker note that similar patterns have been found in other school districts across the US. Data from Boston, for example, reveal that more than half of the city's charter schools enroll fewer than 15% of students with special needs compared to the district average of 21%. In urban schools districts across Massachusetts, special education enrollment is 10% or lower at about a third of the charter schools in the state.

8.2   Contestability and Competition

As suggested in the previous section, it is frequently assumed that the adoption of marketisation approaches to education will lead to excellence. However, most writers would agree with Blackmore's (2000) perception that marketisation and the associated competitive relationships between schools and students have negative impacts on SWSEN. Such students, she argued, are seen as 'non-marketable commodities' (p.381). Several writers have taken up this point. Thus, Dyson (2005) noted that since low-attaining students are likely to depress schools' performance scores, they are wary about accepting such students, or will place them in one of the multiple forms of segregated grouping, or seek to have them assessed as having special educational needs. According to Rouse & Florian (1997), too, the main features of market-oriented reforms taking place in the UK and in many other countries include the pursuit of academic excellence, choice and competition. They claimed that in such a climate, SWSEN are particularly vulnerable and inclusive education is jeopardised. For example, some schools, given increased autonomy, discriminate against students with disabilities while trying to attract greater numbers of high-achieving students. Furthermore, Rouse & Florian noted, local education authorities have only limited ability to guide school policies; and many parents of

such students do not have the knowledge, skills and contacts to comprehend an increasingly deregulated system. In a similar vein, Barton (1999), another English writer, wrote that *'the impact of market ideologies on the governance, process and outcomes of education has been to establish a more hierarchical, status-ridden and selective system in which exclusionary policies and practices have become more prominent' (p.54)*. These ideologies, he claimed, exacerbate the deep structural socio-economic conditions in society that serve to maintain inequalities, discrimination and exclusionary practices. Similar concerns have been expressed in Europe, where Meijer et al. (2003) noted that *'schools are most likely to favour pupils who contribute to higher outputs'* and that *'pupils with special needs not only contribute to more variance within the class but also lower average achievements' (p.15)*.

Similarly, Slee (2005) writing from an Australian perspective, noted that the intensification of competition between schools, resulting from parents choosing schools based on student results, amplifies and reinforces social division. This is compounded when schools are given permission through a quasi-market to become selective of their student cohort. Slee felt that the implications of this for students who are likely to jeopardise school results on academic performance league tables, and therefore for notions of inclusive education, are stark. In Singapore, too, where there is increasing stress on competition, with schools being ranked annually, the capacity of some schools to be selective provides them with an incentive for attracting students who are likely to be assets and, conversely, deters them from accepting students who might depress their scores (Mitchell & Desai, 2005).

If the foregoing risks to the education of SWSEN, particularly inclusive education, are to be avoided or ameliorated, there is an obligation on the state to intervene. As Blackmore (2000) argued, 'The first condition for quality education for all students is a reassertion of the value of a strong state supporting public education systems' (p.383). Dyson (2005) took a similar tack, recommending that the operation of the market be supplemented with vigorous state intervention to ensure that its more perverse consequences are avoided. In particular, there is a need to ensure that those who are vulnerable in the market place are not so much protected as 'empowered to succeed'. This may require appropriate legislation or regulation and close monitoring of schools' behaviour. Thus, in her recent review for the European Union, Riddell (2012) noted that inclusive education implies that all schools will include a diverse

pupil population, but that 'it is very difficult to achieve this outcome within systems which are driven by the market rather than social justice concerns' (p.26). Thus, she recommended that the European Commission 'should encourage countries to monitor the impact of devolved governance and marketisation on children with special educational needs, ensuring that these global trends are not detrimental to inclusive practices' (p.76).

8.3   Decentralisation/Devolution

The previous point regarding state intervention runs up against another aspect of educational reforms, namely the principle of decentralisation or devolution. According to the European Agency for Development in Special Needs Education (2003), decentralisation has been subject to legislative change in many countries, particularly in the Czech Republic, Finland, Lithuania, the Netherlands, Sweden and the UK. The US, of course, has always decentralised its education system, with states enjoying considerable autonomy from the federal system and districts also enjoying a high degree of independence from state administrations. The same would be broadly true of Canada and Australia (and, more recently, Mexico, according to Fletcher & Artiles, 2005), although districts in those countries generally have less autonomy than in the US.

In most countries, the direction of the shifts in administration has been centrifugal (i.e., away from the centre), but in some it has been centripetal (towards the centre), and in still others there have been fluctuations in the balance as new settlements are reached (Dyson, 1997). In any case, it is not an either/or issue, for as Bray (1991) has argued, in his general analysis of centralisation and decentralisation in educational administration,

> It is misleading to present centralization versus decentralization as a simple dichotomy. Many alternative patterns may be devised, and systems may be centralized in some respects and decentralized in others. Appropriate balances depend strongly on the political values of particular societies and the influence of specific contextual conditions (p.384).

Conyers (1986) presented a similar argument, noting that it is not realistic to have either a totally centralised or totally decentralised system of government. Rather,

> It is more accurate ... to envisage a series of continua, one for each relevant criterion, rather than a single one. It then becomes possible to understand how, in many countries, ... 'centralisation' and 'decentralisation' appear to be occurring simultaneously (p.90).

Before proceeding, it might be helpful to distinguish between two forms of the centrifugal shift: 'decentralisation' and 'devolution'. These two concepts should not be seen as synonymous. The political science literature usually defines decentralisation, on the one hand, as involving the transfer of responsibility from the centre, or higher level of government, to an agency at a lower level - a position taken by Rondinelli (1981) when he defined it as *'the transfer of authority to plan, make decisions and manage public functions' (p.137).* Devolution, on the other hand, involves a more genuine transfer of power from the centre.

As noted in the previous section, the issue of decentralisation (or devolution) raises the question of how far can special education policies, as well as management decisions, be devolved to the local level? Elsewhere, the author (Mitchell, 1996; Mitchell, 1997) has argued there is a risk that unless there are strong safeguards at the centre, individual schools could pursue their own idiosyncratic policies with respect to students with special education needs. This could very well result in marginalisation of such students (Dyson, 1997), a lack of equity and an incoherent pattern of service provision across the country. Such undesirable consequences can be avoided by requiring that schools continue to conform to 'hard-wired' central legislation and policy guidelines, with clear accountability procedures.

Perhaps the major unresolved issue is how accountability mechanisms can be introduced without unduly threatening the centripetal/centrifugal balance of responsibility.

Sweden is a particularly interesting case. As described by Riddell et al. (2006), 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. 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. This central state control included tight regulations and checks over the form and content of schooling by the National Agency for Education (Riddell et

al., 2006). More recently, however, the education system underwent reforms that led to a change in the role of the state, with far more delegation of decision-making to the local level and more emphasis on competition and individual choice. 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 (Lundahl, 2002). Under the decentralised regime, for example, the state leaves decisions on the allocation of additional resources to municipalities and schools. Consequently, there is no guarantee that SWSEN 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. Riddell et al., considers that 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. However, towards the end of the decade, there was a return to more centralised controls in an attempt to secure greater social inclusion and equality of experience across what had become a very decentralised system. According to Riddell et al. (2006), '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' (p.*40).*

Inevitably, with responsibility for education split (or shared, to employ a more generous term), this can give rise to tensions. In Canada, for example, McLaughlin & Jordan (2005) referred to a 'disjunction between the federal and provincial political contexts that sets the stage for the push and pull for and against inclusive education' (p.91).

Such tensions are further exacerbated when they are combined with the diffusion of responsibility for special needs education among different ministries and, in some countries among various NGOs. Meijer et al. (2003) cited France and Portugal as clear European examples of countries where responsibility for educational provisions for SWSEN is divided among different ministries.

8.4   Parental choice

One of the keystones of recent education reforms is the principle of choice. The coexistence of inclusive education provisions and special schools (which is the case in almost every country) suggests that choices must be exercised as to where SWSEN are 'placed'. In this process, the relative weight given to the preferences of

SWSEN and their parents and those who administer education systems constitutes a major point of tension. Subsidiary issues centre on how parents negotiate any choices that are at least nominally available to them and how they can be assisted to make informed choices.

Parental choice is a legal right in Austria, Belgium (Flemish Community), The Czech Republic, the Netherlands, Lithuania, the UK and the US (European Agency for Development in Special Needs Education, 2003). In Belgium, for example, legislation passed in 2002 gave more rights to parents in decisions about school placement, with parents no longer being compelled to enroll their child with special needs in a special school. On the other hand, in Greece, although recent legislation gave parents the right to choose the school for their child following appropriate assessment and an IEP, in practice students with the most significant difficulties are rarely included in mainstream settings.

With particular reference to Scotland and England, Riddell (2000) explored the tension between the principles of inclusion and choice. She noted that this relationship works in different ways in different countries and at different periods in their histories. She asserted that there is 'a danger that the hegemony of individual consumerism [i.e., choice] may cause us to lose sight of the wider ideas of group empowerment [i.e., inclusion]' (p.100), a view that is espoused by the disability movement, for whom the principle of inclusion is generally prioritised over that of choice.

Parental choice has been increasingly encouraged in Sweden since decentralisation took place in the early 1990s, with funding following the student (European Agency for Development in Special Needs Education, 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. Also, parental choice is more limited when it comes to SWSEN, when local authorities may impose restrictions on the basis of a school's capacity to cater for the child's needs (Rädda Barnen, 2004).

In the USA, the President's Commission (2002) made the following recommendation relating to parental choice:

> INCREASE PARENTAL EMPOWERMENT AND SCHOOL CHOICE:
> Parents should be provided with meaningful information about their children's

progress, based on objective assessment results, and with educational options. The majority of special education students will continue to be in the regular public school system. In that context, IDEA should allow state use of federal special education funds to enable students with disabilities to attend schools or to access services of their family's choosing, provided states measure and report outcomes for all students benefiting from IDEA funds. IDEA should increase informed opportunities for parents to make choices about their children's education. Consistent with the No Child Left Behind Act, IDEA funds should be available for parents to choose services or schools, particularly for parents whose children are in schools that have not made adequate yearly progress under IDEA for three consecutive years (p.36).

The Commission went on to argue that parental choice is an important accountability mechanism: 'Increasing school choice options is an effective means of achieving accountability in the broad system if parents are able to more easily choose where their child attends school' (p.40). Further, the Commission pointed out that one way to increase choice is simply to give states more flexibility to use federal IDEA funds for this purpose, making it possible for funds to follow students to the schools their families choose, especially 'when they choose to opt out of chronically failing schools or districts' (ibid,).

8.5 Accountability

Accountability boils down to the multi-faceted question of *who* should be held responsible for *what*, *how* they can be evaluated, and with what *consequences*? Its scope therefore is quite complex. It includes:

a. *legislators*, who are responsible for passing appropriate laws and providing the necessary funds to enable them to be implemented;

b. *policy-makers*, who are responsible for advising legislators and for establishing and monitoring effective policies for implementing laws;

c. *schools (through their governing bodies and principals)*, for translating policies into administrative arrangements and for monitoring their implementation;

d. *teachers and other 'front-line' professionals*, for implementing policies and employing their professional skills and judgements in effectively teaching individual students (in the present case those with special educational needs).

Increasingly, decisions at all of these levels are evidence-driven, or are being expected to be evidence-driven (see, for example, Shaddock et al., 2009). Thus,

referring to education more generally, Hattie (2005) wrote, 'If we, as educationalists in classrooms and schools do not provide evidence that increased resources make a difference to student learning outcomes, then we will soon be on the back foot, arguing why there should not be decreases in resources' (p *12).*

How to measure the educational performance of SWSEN with validity and reliability is one of the major contemporary challenges facing educators around the world. As Shaddock et al. (2009) have recently noted, the first challenge is to establish the principles that should underpin accountability for the learning outcomes of such students. They cited the National Center on Educational Outcomes (Thurlow et al., 2008) as providing possible approaches for measuring performances. In the UK, the influential government document, *Removing barriers to achievement* (Department for Education and Skills, 2004), stressed the need for accountability: 'Though we do not wish to prescribe one model, we are clear that all local monitoring arrangements should be linked to service standards for SEN specialist support … and should be focused on outcomes for children and school self-evaluation' (p.78).

Useful guidelines for developing accountability processes in general have been provided by Crooks (2003, pp 2-5) who argued that they should

- preserve and enhance trust among the key participants in the accountability process;
- involve participants in the process, offering them a strong sense of professional responsibility and initiative;
- encourage deep, worthwhile responses rather than surface window dressing;
- recognise the severe limitations of our ability to capture educational quality in performance indicators;
- provide well-founded and effective feedback that promotes insight into performance and supports good decision-making; and
- ensure that as a consequence of the accountability process, the majority of the participants are more enthusiastic and motivated in their work (p.2).

With regard to SWSEN, there are major challenges in determining what to measure, how to measure it, the accuracy of measurement, and the meaning of the results (Kauffman & Hallahan, 2005). As noted by Shaddock et al. (2009), disability is not a unitary variable and hence it is difficult to develop a meaningful, common metric. However, they went on to suggest the need for data on results such as (a) the programme and level of schooling achieved, (b) the timeliness of additional support;

participation and suspension rates, (c) graduation rates, (d) students' postsecondary outcomes, (e) students' time in segregated/integrated settings, (f) parents'/carers' satisfaction, (g) students' satisfaction, (h) parents'/carers' and students' participation in individual planning; and (i) outcomes of IEPs (e.g., Decline in Performance, No Progress, Some Progress, Expected Progress, or, Better than Expected Progress - can easily be aggregated and reported). The critical conclusion, according to Shaddock et al., is that 'no student should be left out of accountability policies' (p.128).

In the US, attempts are made to aggregate data on student outcomes at the state level, with the Department of Education carrying out annual ratings of states' performances of their special education programmes. These ratings are intended to fulfill IDEA's requirement that 'measurable' and 'rigorous' targets be met for students enrolled in special education. Thus, states are required to create a 'state performance plan' on a six-year cycle that sets goals for special education performances in 20 different areas. Since 2007, the Department of Education has been rating each state annually in four categories: 'meets requirements', 'needs assistance', 'needs intervention', and 'needs substantial intervention'. To date, no state has received the last rating, but several have been rated in the third category. Alaska, for example, has been consistently rated in the top category. See article in Education Week, July 7, 2010:

http://www.edweek.org/ew/articles/2010/07/07/36idea_ep.h29.html?tkn=YL WFfd70n5NecFwB17jAQnnGn2QAbmBQWgkn&print=1

State Performance Plans and Annual Performance Reports are expected to cover 20 areas, including:

- Percent of youth with IEPs graduating from high school with a regular diploma.
- Percent of youth with IEPs dropping out of high school.
- Participation and performance of children with IEPs on statewide assessments, including proficiency rate for children with IEPs against grade level, modified and alternate academic achievement standards.
- Rates of suspension and expulsion, including percent of districts that have a significant discrepancy, by race or ethnicity, in the rate of suspensions and expulsions…in a school year for children with IEPs…
- Percent of children with IEPs aged 6 through 21 served
    a. Inside the regular class 80% or more of the day;

  b. Inside the regular class less than 40% of the day; and

  c. In separate schools, residential facilities, or homebound/hospital placements.

- Percent of parents with a child receiving special education services who report that schools facilitated parent involvement as a means of improving services and results for children with disabilities.

- Percent of districts with disproportionate representation of racial and ethnic groups in special education and related services that is the result of inappropriate identification.

- Percent of youth with IEPs aged 16 and above with an IEP that includes appropriate measurable postsecondary goals that are annually updated and based upon an age appropriate transition assessment, transition services, including courses of study, that will reasonably enable the student to meet those postsecondary goals, and annual IEP goals related to the student's transition services needs…

    Several countries have developed policies requiring SWSEN to have access to general education accountability systems, as summarised in Mitchell et al. (2010). The arrangements in the US will suffice to illustrate these policies. Until recently, in that country, accountability in special education was defined in terms of progress in meeting IEP goals. This all changed in IDEA 97, which required all students, including those with disabilities, to participate in their states' accountability systems. This was followed by a policy memorandum from the U.S. Department of Education (2000), to the effect that an exemption from a state's assessment programmes was no longer an option for students with disabilities. Both IDEA 97 and the No Child Left Behind Act (NCLBA) of 2002 required the provision of alternate assessment for students who could not participate in state or district assessments with or without accommodations. Districts are permitted to measure up to 3% of their students using alternate assessments (1% against alternate achievement standards and 2% against modified standards). The use of alternate assessment is a decision to be made by a student's IEP team. To quote IDEIA, IEPs must include 'a statement of any appropriate accommodations that are necessary to measure the academic achievement and functional performance of the child on state- and district-wide assessments' (IDEIA, 2004, p.118). As well, the NCLBA stipulated that student performance be disaggregated by special education status, among others, and, to avoid sanctions, by 2013/2014 schools must show that students in various subgroups are making adequate yearly progress toward mastering content standards.

Of course, effective accountability requires effective monitoring. As Meijer et al. (2003) pointed out from a European perspective, 'Monitoring and evaluation procedures must be developed and, in general the issue of accountability still has to be addressed within the framework of special needs education' (p.15).

8.6 Standards-based Reforms [1]

One of the educational battle cries in the US since the 1990s has been for 'standards-based reform', with its goal of higher and more rigorous achievement standards for all students. This economics-driven quest for 'excellence' or 'high standards' is increasingly referred to in the educational literature and in international policies. For example, in his discussion of inclusive education in England, Dyson (2005) outlined the standards-driven, highly accountable post-welfare society with its aim of developing individuals as a means of developing the economy. In this context, the emphasis is on excellence in education. Although the aim is to achieve excellence for the many, not the few, Dyson felt that the shift of focus to outputs in the education system is making 'unproductive' students less welcome in schools.

Canada and the US are also undertaking what McLaughlin & Jordan (2005) referred to as 'standards-driven reform', which focuses on increasing the educational performance of all students, assessing these performances through 'high-stakes testing' and holding schools to more stringent levels of accountability. In this context, the focus of inclusive education shifts from access to outcomes and it thus becomes a means to an end and not the goal. McLaughlin & Jordan considered that parents seeking inclusive education will increasingly be faced with regular classrooms that have an even more demanding curriculum and a pace of instruction that may not support inclusion. Writing from a US perspective, Thurlow (2000) concluded that students with disabilities do not fare well under these reforms. She cited research showing that such students are frequently excluded from national and state assessments at various points – the setting of standards; participation in assessments; accommodations to enable their abilities, rather than their disabilities, to be assessed; and the reporting of assessment results. Students with disabilities are disadvantaged,

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[1] This section should be read in conjunction with Section 4 in the recent review of IEPs carried out by the writer and his colleagues at the University of Canterbury (Mitchell et al., 2010). It contains a full review of international trends in policies requiring SWSENs' access to general education accountability systems.

too, by the narrowing of the curriculum that emerges as an unintended consequence of the standards-based reforms as teachers focus on the range of knowledge and skills included in assessments. While this latter point could be considered undesirable for all students, Thurlow argued that it is particularly relevant when considering the need for students with disabilities to have access to a broader curriculum. Also writing from a US perspective, Artiles (2003) predicted that the introduction of such education reforms as standards and high-stakes testing may well exacerbate the current trend towards over-representation of ethnic minority groups in special education.

Other writers to touch on these issues include Brown (2005), who noted that in Middle Eastern countries the concept of excellence is perceived as being incongruous with the accommodation of learning diversity, and Slee (2005), who considered that narrowly defined notions of academic outcomes enforced through high stakes testing 'is not the friend of educational inclusion' (p.143).

8.7   Leadership[1]

Effective leadership has been, and always will be, an essential component of education. One test of leadership is the extent it succeeds in achieving positive outcomes for the most disadvantaged, in this case for SWSEN. As noted in Section 6.4, leadership should be exercised throughout an education system: by legislators, policy-makers, school governing bodies, principals and teachers. Also, leadership should be evidence-driven, focused on student outcomes, and based on a recognition that success comes from individuals working together (Shaddock et al., 2009).

At the school level, according to Mitchell (2008), developing a school culture for SWSEN requires the exercise of leadership, particularly by the principal, but also by others in a school. This was recognised, for example, in the UK document, Removing barriers to achievement (Department for Education and Skills, 2004), which stressed the leadership of headteachers in bringing about inclusion. According to Heller & Firestone (1995) and Mayrowetz & Weinstein (1999), too, in order to bring about an inclusive school culture, the following leadership roles need to be exercised:

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[1] See Chapter Eleven, section 11.4, for further comments on leadership.

a. *provide and sell a vision*: this involves defining the philosophy and goals of inclusion and promulgating them wherever possible, e.g. in school publications, talks to parents and the community, and in casual conversations;

b. *provide encouragement and recognition*: this can be formal and informal, public or private, but it has the common feature of recognising those who are promoting inclusion;

c. *obtain resources*: since one of the key barriers to the successful implementation of inclusion in many countries is the lack of appropriate resources, leadership has to advocate for adequate resources to be brought into the school; once these are in the school, leaders should ensure that they are equitably distributed;

d. *adapt standard operating procedures*: this involves recognising that since rules, regulations and requirements may have evolved without the significant presence of learners with special educational needs in the school, they may have to change; examples here include curriculum, textbooks and examinations that may be inappropriate for these learners;

e. *monitor improvement*: increasingly, it is not acceptable for leaders just to 'do good', but to show that what they are doing is having a positive impact on learners' achievements and social behaviour;

f. *handle disturbances*: since inclusive education is rarely a settled and universally agreed policy in any school, it is inevitable that there will be overt and covert resistance that has to be handled.

8.8 Summary

1. *Policies and practices relating to the education of SWSEN must take account of the general educational context, especially those aspects that are derived from such neo-liberal philosophies as marketisation, decentralisation/devolution, choice, competition, and the setting of accountability criteria such as standards and high-stakes testing.*

2. *Neoliberalism in education centres on the twin notions of reducing the size of state involvement in education and exposing schools to the competitive forces of the free market.*

3. *In most countries, the direction of the shifts in administration has been centrifugal (i.e., away from the centre), but in some it has been centripetal (towards the centre),*

and in still others there have been fluctuations in the balance as new settlements are reached.

4. *According to some writers, neo-liberal market philosophies contain many elements that tend to work against equity, the valuing of diversity and inclusive education.*

5. *The shift of focus to outputs in the education system is making 'unproductive' students less welcome in schools.*

6. *The implication of these (presumably) unintended consequences is that the state may see itself as having an obligation to intervene to ensure that such consequences are prevented or ameliorated. It can do this through legislation or regulation and by close monitoring of schools' behaviour.*

7. *The coexistence of inclusive education provisions and special schools (which is the case in almost every country) suggests that choices must be exercised as to where SWSEN are 'placed'. In this process, the relative weight given to the preferences of SWSEN and their parents and those who administer education systems constitutes a major point of tension.*

8. *Accountability boils down to the multi-faceted question of who should be held responsible for what, how they can be evaluated, and with what consequences? Its scope therefore is quite complex.*

9. *Increasingly, decisions at all of these levels are evidence-driven, or are being expected to be evidence-driven.*

10. *How to measure the educational performance of SWSEN with validity and reliability is one of the major contemporary challenges facing educators around the world.*

11. *Several countries have developed policies requiring SWSEN to have access to general education accountability systems.*

12. *One of the educational battle cries in many countries since the 1990s has been for 'standards-based reform', with its goal of higher and more rigorous achievement standards for all students, including those with special educational needs.*

13. *Leadership should be exercised throughout an education system: by legislators, policy-makers, school governing bodies, principals and teachers. At the school level, developing a school culture for SWSEN requires the exercise of leadership, particularly by the principal, but also by others in a school.*

CHAPTER NINE

FUNDING AND RESOURCING[1]

The means of allocating resources to SWSEN, and the quantum of those resources, has long exercised policy-makers around the world, and continues to do so. As we shall see in this chapter, the issue of funding is impinged on and, in turn impinges upon almost every issue explored in this review. Thus, for example, there is a reciprocal relationship between funding and such issues as paradigms of special educational needs, categorisation, Response to Intervention, decentralisation, accountability, parental choice, inclusive education and special schools.

Historically, funding arrangements for special education have often been kept administratively separate from the mechanisms that govern fiscal resources for general education (Ferrier et al., 2007; Moore-Brown, 2001). Reasons for this are explored by Ferrier et al. (2007), who noted that special educational services have traditionally been reserved for students with identified disabilities. Because of their disabilities, these students were considered to have a clear and justifiable need for extra resources and specialised interventions over and above that provided to other students in the regular classroom. They cited Pijl & Dyson's (1998) and Rechsly's (1996) point that these specialised services are often viewed as entitlements that should be reserved for students meeting pre-determined eligibility requirements, with the funding for these entitlements directed only towards students identified as eligible and placed in special education.

In most jurisdictions, these and other factors have contributed to the creation of separate budgetary arrangements to ensure extra funding to support the educational needs of eligible students. For the past decade or so, however, funding models for special education have been under review in several countries. Ferrier et al. (2007) identified several drivers for such reviews, in particular rising costs, concerns over efficiency and equity in the use of resources, and concerns about the incentives inherent in funding formulae for contra-indicated practices, such as exclusion from mainstream education and over-referral into special education.

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[1] This chapter draws upon Mitchell (in preparation), the European Agency for Development in Special Needs Education (2003), Ferrier et al. (2007), Riddell et al. (2006), Shaddock et al. (2009), Pijl (2014), as well as those sources specifically acknowledged.

This chapter will explore the variety of ways in which additional support for SWSEN is provided and the various tensions that arise in different funding models. It will examine five main topics: (a) the relationship between funding and student achievement, (b) levels of funding, (c) various funding models, (d) sources of funding, and (e) general principles of funding.

9.1   Relationship between Funding and Student Learning Outcomes

As noted by Shaddock et al. (2009), in their review of the literature, there is not a strong body of evidence to show that finance in itself has a direct and major effect on student learning outcomes. For example, they cited Hattie (2005) as reporting an effect size on student learning of only 0.14 for 'finances' and, in a more recent meta-analysis, an effect size of 0.23. Hattie suggested that this lack of association is probably due to factors such as the source of the data (from well-resourced countries only), that most school finances are fixed; and that disbursements within schools involve whole school expenditure. Shaddock et al. concluded, however, that the stark reality is that available research does not demonstrate a strong, *direct* causal relationship between finances and educational outcomes; rather, the big effects on student learning are attributable to individual teacher differences. Thus 'some minimum level of resourcing is necessary, and after that, the key consideration in regard to finances and educational outcomes is how well the finances are spent' (p.91).

Research has found that particular types of expenditure do have a positive impact on student learning. For example, increased per student expenditure on professional learning for teachers and paying salaries to attract high quality and experienced teachers, have modest effects on student outcomes (Hattie, 2009). Further, there is evidence that the quality of the learning space affects learning. For example, after reviewing more than 30 studies, the present writer (Mitchell, 2014) concluded, 'Learners who spend time in well-designed, well-maintained classrooms that are comfortable, well-lit, reasonably quiet and properly ventilated with healthy air learn more efficiently and enjoy their educational experiences' (p.224).

9.2   Levels of Funding

Chambers et al. (2003) presented an analysis of extensive US data on special education funding for the 1999-2000 school year. According to these data, per student

expenditures ranged from a low of \$10,558 for those with specific learning disabilities to a high of \$20,095 for those with multiple disabilities. Expenditures for students with specific learning disabilities were 1.6 times the expenditure for regular education students, whereas expenditures for those with multiple disabilities were 3.1 times higher. Overall, per student education expenditures for students who received special education services (excluding homebound students) were 1.91 times greater than expenditures for students who received no special education services.

In his detailed review of special education funding in one state, New York, Parrish (2000) noted that, on average, expenditures for students receiving special education services were 2.3 times greater than general education students. This was marginally higher than the figure of 1.91 for the US as a whole, as noted above. In another analysis, Parrish et al. (2004) found that although the costs of special education in the US were rising, the data suggested that 'rather than rising numbers of high cost special education students or extravagant services per student, the primary source of rising special education costs seems to be the rising numbers of students being referred to, and identified as needing, special education' (p.30). This was shown in data indicating that the special education population had been growing steadily as a percentage of the total student population, from 8.96 percent in 1987-88 to 10.74 percent in 2000-01, and 11.46% in 2005/06.

Across all OECD countries, according to Evans (2004), students with disabilities cost two to four times as much to educate as regular students. For those with disabilities, the cost is higher in special schools, compared with mainstream education, by a ratio of about 1.2:1.

9.3   Various Funding Models

Five funding models can be identified: (a) demand (b) supply, (c) output, (d) throughput, and (e) mixed models.

9.3.1 Demand-driven funding

Sometimes referred to as an *input model* (Riddell et al., 2006; Pijl, 2014) or *categorical funding* (Ferrier et al., 2007), demand-driven approaches to funding SWSEN is based on allocating individual funding to identified students, the amount based on the student's degree and type of disability or need for support. An example would be the ACT procedure for allocating funding on the basis of a Student Centred

Appraisal of Need and New Zealand's Ongoing and Reviewable Resourcing Scheme (Ministry of Education, 2015).

Pijl (2014) notes that the main advantage of the input model is that the funding is normally earmarked and delivered directly to those needing it. He goes on to note, however, that there are three potential disadvantges. Firstly, by focusing on individuals with special needs, in 'a search for pathology' (Ysseldyke, 1987), it may hinder inclusive education. Secondly, unless the criteria are objective and well-defined, those receiving funds may manipulate them and may even engage in strategic behaviour to maximise the funding, thus resulting in growing expenditure. Thirdly, it may stimulate schools to ask for additional funding for each additionl task it is required to perform – i.e. a form of 'grant addiction'.

In a similar vein, and drawing upon the work of Beek (2002), Ferrier et al. (2007), Fletcher-Campbell et al. (2000), and Pijl & Dyson (2008), Shaddock et al. (2009) outlined the unintended effects of reliance on demand-driven models, as follows:

- they offer a 'perverse incentive' to over-identify and/or 'play the system';
- 'playing the system' results in a reduction in funds for each student;
- the strong focus on disability, difference and deficit is upsetting for parents and has deleterious effects on inclusive culture and practice; and
- they lead to the 'medicalisation' of diversity in order to attract additional funds.

These concerns are echoed in European research on the impact of special education funding models. According to Meijer (1999), in countries where funds are tied to individual children, there is more evidence of strategic behaviour by parents and teachers to secure resources. Thus, countries like England, France and Luxemburg, where children with greater 'needs' have greater funding, parents and teachers engage in strategic behaviour to secure resources (Riddell et al., 2006).

After undertaking a 17-nation study on the distribution of resources to support inclusion, Beek (2002) found that individual budgets reduce inclusive practice. Shaddock et al. went on to cite recent Australian research that supports Beek's view and highlights additional deleterious effects of demand-driven funding approaches.

For example, Graham & Sweller (2011) report that between 1997 and 2009, the costs of special education services in NSW nearly doubled: up from 7.2% in 1997 to 12.8% in 2009. They pointed out that needs-based and input-driven models 'produce incentives to formulate needs' because of the extra funding attached to the diagnosis of disability' (p.16). They also noted the attractiveness of opportunities to provide authoritative medical explanations for learning failure and the lure of segregated placement that can lead to a reduction in expectations all-round.

Yet another problem with demand-led funding has been noted by Riddell et al. (2006), who pointed out that where funds are tied to the formal identification of particular disabilities, resources may be used on expensive litigation. Also, as Ferrier et al. (2007) and Naylor (2001) have pointed out, while the diagnostic process serves as a check and balance to over-identification, the costs of verifying a student's diagnosis are considerable. For example, in an early study, Reynolds et al. (1987) estimated that up to 20% of the costs of educating a SWSEN is taken up by the identification process.

9.3.2 Supply-driven funding

In contrast to a demand-driven model, a supply-driven model permits control over levels and patterns of expenditure. Notwithstanding the above analysis, Shaddock et al. (2009) pointed out that although the nomenclature is about response to *needs*, ACT's Student Centred Appraisal of Need is fundamentally a *supply*, rather than a *demand*, driven model.[1] That is, they say, while the process helps ensure that different levels of need are differentially and transparently resourced, there does not seem to be any direct and necessary connection between the totality of individual needs of a particular student and the totality of funding allocated for that student. They go on to speculate that this is perhaps the reason for the considerable discontent with the level of funding currently delivered by the Student Centred Appraisal of Need to individual students.

In order to guard against the 'perverse incentive' to over-identify SWSEN and/or 'play the system', which is inherent in pure demand-driven models, the supply-driven model usually *caps* the number of students who can be considered eligible for

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[1] The same could be said of New Zealand's ORRS system, given that there is a cap on the number of students coming under its purview.

additional funding. For example, as pointed out by Parrish (2000), the US has capped the proportion of such students at 12% of the school-age population. Further, Parrish pointed out that federal special education funding will eventually be *census-based*, meaning that it will be based on total school enrolments rather than on special education counts.

According to Ferrier et al. (2007), the literature contains two studies that have investigated census-based models for funding special education (Evans et al., 1997; and Hartman, 2001). In the latter, schools received a set amount of funding based on total enrolment. The amount per student was set at a level designed to cover the costs of special education for the 15% of students estimated to have mild disabilities. An additional amount was provided to cover the costs associated with the 1% of the school population expected to have severe disabilities. The author found that census-based funding increased administrative burdens for school districts, did not lower expenditure, nor did it decrease special education enrolments. Evans et al. (1997) concluded that census-based models could be improved by introducing a weighting formula to compensate schools with higher SWSEN enrolments and to allow funding of prevention programmes.

Such supply-driven approaches, Parrish argued, would permit SWSEN to be served outside special education and would reduce the incentives to over-identify. Further, Evans (2000) noted that supply-driven models have the advantage of being quantifiable and can be used to determine the extent to which additional resources are being used efficiently and effectively. It also enables comparisons to be made between and within countries.

On the other hand, according to Parrish (2000), supply-driven models would raise issues of equity in states and districts with higher prevalence rates, jeopardise procedural safeguards if students are not identified as having special needs, and may threaten current levels of funding. Further, as Pijl & Dyson (1998) noted, the downside of supply-driven models is that 'individual cases have to be fitted into a centrally determined pattern, sometimes with unfortunate consequences' (p.275).

9.3.3 Output funding

As outlined by Shaddock et al. (2009), Meijer et al. (1999) raised the potential benefits of 'output funding' and Fletcher-Campbell (2002) referred to this model as a 'theoretical possibility' in which schools are 'rewarded' for effectiveness and

excellence and are funded for tasks completed, retrospectively, rather than 'tasks to be done', as is mostly the case at present (p.20). Shaddock et al. go on to note that while Fletcher-Campbell pointed to the problem of what could be called 'perverse disincentives' (e.g., a school may be so successful that it no longer qualifies for additional funding) - the approach deserves further attention as *part* of the funding mix, because in focusing on quality outcomes, it aligns special education with the mainstream accountability agenda. Pijl (2014) is also critical of the output model on the grounds that while it rewards effectiveness, it also seduces schools into finding ways to secure certain positive results by, for example, opening their doors to students with high academic potential and referring those with less potential to other parts of the system. Further, Farrell (2005) has argued that 'student progress' is a useful funding criterion because, compared with criteria such as 'evidence of need' and 'provision required to address barriers to learning', 'student progress' can at least be defined – and presumably measured. However, they conclude that the benefits of output funding for students with a disability would depend on the way in which such a policy were implemented.

9.3.4 Throughput funding

According to Pijl (2014), this model is linked to particular tasks or services that schools are expected to fulfill or offer. The main funding body (the central government in many countries) decides how much funding will be available for each region and what level of services they are expected to provide. The regions then decide how to fund individual students. Pijl describes four possible advantages for the throughput model. Firstly, without too much bureaucracy, the professionals directly responsible for special needs education can decide for themselves how to use the budget. Secondly, the budget can be used more flexibly. Thirdly, the system is less prone to strategic behaviour. Fourthly, it encourages (or does not discourage) inclusive education.

However, Pijl also notes three potential disadvantages of the throughput model: (1) since funds are available regardless, it may generate inactivity or inertia, (2) it may lead to the re-allocation of the special needs budget, and (3) regions with unanticipated high numbers of SWSEN or other financial difficulties may have a shortfall in funding.

9.3.5 Mixed models

After considering the pros and cons of the fvarious funding models, Pijl (2014) argued that one way to make the system more resistant to strategic behaviour is to combine funding systems, for example by having a throughput system at the national level and the input system at the regional level, or alternatively, a throughput/throughput system. He concludes with the statement that 'Anticipating unintended outcomes and plugging unwanted loopholes in funding regulations is a continuous battle' (p.255).

9.4 Sources of Funding

9.4.1 Country descriptions

In this section, consideration will be given to the sources of funding made available to SWSEN in six countries: Australia, England, Sweden, Finland, the Netherlands, New Zealand, and the US. This range is probably sufficient to illustrate the various ways in which funding occurs.

As described by Shaddock et al. (2009), funding for schools in *Australia* is extraordinarily complex. Resources are delivered from the Commonwealth through a range of programmes and disbursed by state and territory governments to sectors. The complicated array of Australian Government financial assistance to the States and Territories to improve the educational outcomes of students with disabilities is described in some detail by Shaddock et al. (2009) and Ferrier et al. (2007) and won't be further explored in this review.

In *England*, 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' (Riddell et al., p.45).

In *Finland*, most institutions providing basic and upper secondary level education are maintained by local authorities or joint municipal boards (consortia of

municipalities). Responsibility for educational funding is divided between State and the local authorities. Of the funding for primary and secondary education, the state subsidy averages 57% of the costs, while municipal contributions amount to an average of 43%. In addition, the State supports local authorities by granting them increased state subsidies to assist with provision of special education (European Agency for Development in Special Needs Education, 2009).

For so long known as a highly centralised society, *Sweden* in the 1990s became one of the most decentralised, with considerable 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 SWSEN in a mainstream setting will attract additional funding. As a result, some mainstream schools have become increasingly reluctant to accept such students and there has been a small but steady increase in the number of pupils attending special schools (Riddell et al., 2006).

Until recently, *the Netherlands* stood out as reporting higher proportions of students registered in special schools and/or special classes than in most other European countries (Pijl, 2000), and the financing of SWSEN in mainstream schools had been restricted (Emanuelsson et al., 2005). In 1996, however, a major change occurred in the funding model with the introduction of a 'Back Pack' system. Instead of financing places in special facilities only, there was a shift to funding special services to SWSEN, regardless of the type of school they attended (Emanuelsson et al., 2005).

In *New Zealand*, if a child has 'high or very high needs' (a term preferred to 'disability'), the national Ministry of Education directly funds a higher level of support for them through a range of schemes or services. These include the following: (1) the Ongoing and Reviewable Resourcing Scheme, which provides support for children with severe needs or multiple needs. through additional teachers, teachers' aides, specialists and items a child might need in the classroom; (2) The Communication Service, which provides support for children who have difficulties with talking, listening and understanding language; (3) the Severe Behaviour Service, which provides support for children experiencing severe behaviour difficulties; and (4) the School High Health Needs Fund, which provides a teacher's aide for a child with a medical condition that requires special care in order for them to be able to

attend school safely. As well, classroom teachers might be supported by (a) a Special Education Needs Coordinator (SENCO) who can work with parents and a child's teacher to develop a suitable programme for a child, and (b) resource teachers or other services and support the school buys through its Special Education Grant based on how many children it has and its decile ranking, and (c) Resource Teachers: Learning and Behaviour employed by clusters of schools to provide classroom teachers with special teaching strategies, or to institute school-wide programmes.

In the USA, federal funds are made available to contribute to the costs of educating students with IEPs. In order to receive these funds, state and local educational agencies are required to provide 'free appropriate public education'. According to a Center for Special Education Finance Report on state special education finance systems, on the average, states provide about 45% and local districts about 46% of the support for special education programs, with the remaining 9% provided through federal IDEA funding (Parrish et al., 2003). This latter figure compares unfavourably with the original intent of IDEA, which had authorised Congress to contribute up to 40 percent of the national average per student expenditure for each special education student. From the outset, appropriations for special education have failed to implement that original authorisation. Debates persist about the level of funding which should come from the different levels (federal, state, school district). Most states, in turn, have failed to make up the gap in federal funding, and this in turn has created financial pressures on local school districts. The relatively high proportion of funding expected to be contributed by school districts inevitably means that the education of children in poorer areas is less well resourced despite various attempts to redress any imbalances through special funding programmes. Given these funding shortfalls, it should come as no surprise that there is often a discrepancy between what is recommended in IEPs and what is actually delivered, especially in the poorer school districts (Bowers & Parrish, 2000).

9.4.2 Source and allocation funding models

Ferrier et al. (2007) have provided an interesting taxonomy of funding, based largely on its sources and disbursement. While there are some overlaps with the funding models outlined in section 7.3 above, there are some new elements that are worth exploring. Ferrier et al. identified five broad categories based on the source and allocation of funding:

- Discretionary funding
- Categorical funding
- Voucher-based funding
- Census-based funding
- Actual-Cost funding

Discretionary funding models provide separate funds for special education purposes. The funds might be allocated as a set percentage of the school's overall budget or they might be received from an external source. They enable individual schools to make decisions about the types of services and programmes to support, within broad guidelines on the use of the funds. For example, in a model described by Grigal et al. (2001), schools allocated 20% of their budget to special education. Similarly, in the model described by Naylor (2001), additional funding was set aside specifically for students requiring specialised services and intensive support due to the severe nature of their disabilities.

Categorical funding models allocate additional funding to each student with an identified disability, with the amount based on the child's degree and type of disability (cf. the demand-driven model described in section 7.3). This funding might be allocated to the school or to the student's parents. These models aim to ensure that special education funds are specifically targeted to meet the needs of students with identified disabilities or special needs. Funding allocated to parents can be moved if the student transfers from one school to another, thus the categorical model has features in common with voucher-based models below.

Voucher-based funding models provide a direct public payment to parents to cover their child's public or private school costs. The amount of the voucher varies depending on parent and student characteristics, such as the type and degree of the student's disability and parental income. The payment can be made either directly to the parents or to a school on behalf of the parents. The aim of these models is to increase parental choice and to promote competition between schools in order to increase the quality of educational services.

Census-based models allocate funding on the basis of the number of students with certain weighted characteristics, such as socio-economic status or the type and degree of disability. The aims of these models are to simplify the overall funding mechanism; and to make the financing of special education independent of

classification and placement decisions, thus removing the financial incentives for over-identifying students as having a disability, which, as noted earlier, can be associated with more categorically-based funding models.

Actual costs funding models allocate funding based on the actual costs involved in providing special education services. Total funds would be allocated to schools on the basis of the number of students meeting the definition for mild or more severe/multiple disabilities. This model is unique in attempting to estimate the actual costs of providing services, but also includes features of categorical and census-based approaches in that the total amount of funding is based on student numbers.

Ferrier et al. (2007) went on to evaluate these models, but it is beyond the scope of the present review to include such detail. However, it is worthwhile briefly outlining their schematic conceptualisation of the funding models they have identified (Figure 9.1). Essentially, they have presented a bi-polar model with two overlapping continua: one with census-based models at one end and categorical-based models at the other end. Orthogonal to this continuum is another axis with anchors related to whether the funds go to the district, school, programme, or parents, i.e., a continuum with full central control of funds at one end and full parental control at the other. As can be seen in the following figure, they place some of the broad funding categories summarised above within this bipolar model.

Figure 9.1 Funding models

District

1. Census-based

3. Categorical
Discretionary

School

5. Mixed funding system

Census ——————————————————— Categorical

Programme

2. census-based
discretionary

4. Voucher

Parent
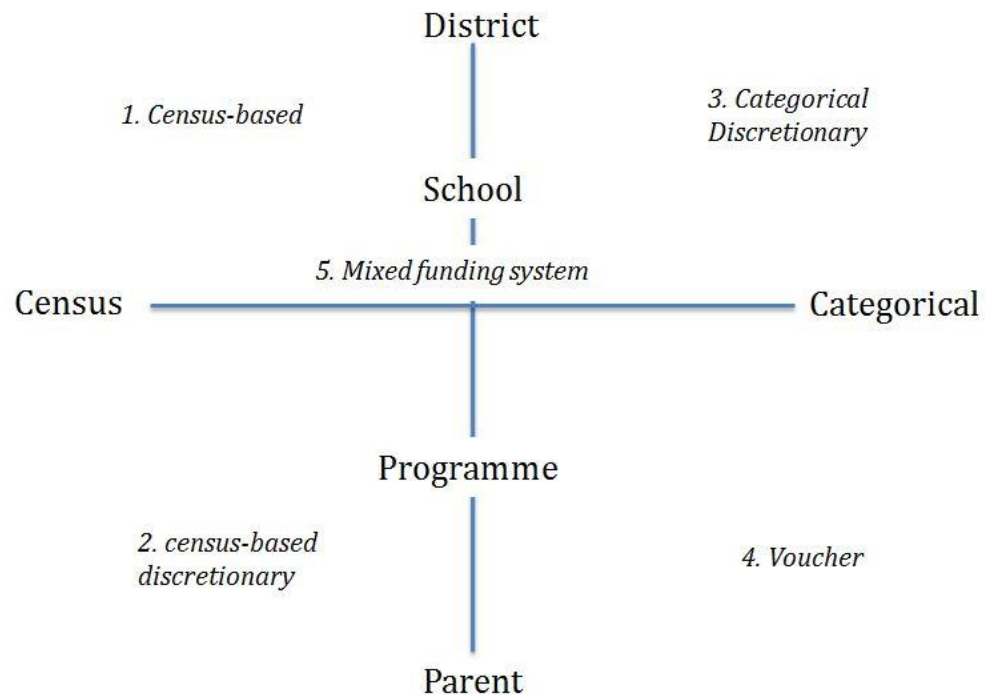
9.5   General Principles of Funding

Research on the impact of different funding models for SWSEN suggests that the following general principles should be taken into account by policy-makers:

1. The funding of education and special education is extraordinarily complex.

2. In efforts to resolve funding issues, the starting point should not be with how to fund special education, but rather with how to fund general education.

3. There is no single, 'best' funding model. Every model has strengths and weaknesses, incentives and disincentives, and positive and negative outcomes that may affect different students differentially, so a combination of funding models seems desirable.

4. From an economic efficiency viewpoint, it is best to allocate resources where they will do the most good, for example, to early identification and intensive education for students who struggle with learning, and in ways that support system or school policy, for example, improvements of students functioning in the lowest quartile.

5. Resources should be allocated in ways that are coherent with, and promote, system policy, for example, towards greater inclusivity, lifting the performance of all students and particularly those functioning in the bottom quartile and improving equity. There are sound pedagogical and financial rationales for using resources to further integrate special and regular education.

6. Funding should be flexible enough to meet the needs of children who experience complex needs.

7. Undue perverse incentives and disincentives should be avoided.

8. Resources should be directed to approaches for which there is evidence of effectiveness in improving students' learning outcomes.

9. Arrangements to ensure accountability, including the monitoring of the use of resources and outcomes for children, should be included.

10. Funding should be transparent and equitable, with individual schools clear about the resources available to them.

11. Funding should be allocated in ways that give schools the flexibility, within appropriate accountability frameworks, to implement practices that work for them and assist teachers to meet the learning needs of SWSEN in the context of accountability for a quality education for every student.

(Synthesised from Beek, 2002; Ferrier, et al. 2007; Gallagher, 2006; Graham & Sweller, 2011; Itkonen & Jahnukainen, 2007; Harr et al., 2008; Meijer et al., 1999; Shaddock et al., 2009; Weishaar & Borsa, 2001).

More recently, the writer has outlined a set of criteria for school funding that targets learners from low-SES families (Mitchell, in preparation). These are equally applicable to SWSEN and overlap with the above principles.

According to Levacˇić (2006) and Ross and Levacˇić (1999), school funding formulae may be assessed in relation to the four standard criteria of transparency, adequacy, efficiency and equity. To these four criteria, the writer added two more: robustness and freedom from unintended consequences (Mitchell, in preparation). Each of these six criteria are summarised as follows:

*Transparenc*y refers to the situation when stakeholders have easily available information on the amount of funding each administrative unit receives, the basis for this allocation and how these resources are used.

Adequacy refers to resources being sufficient to achieve a specified standard of education for students. In the case of funding for low SES students, there are several problems in making such a determination. First, with few exceptions, countries have not linked their funding levels for such students with their educational outcomes. Second, most jurisdictions do not specify the uses to which additional funding can be put. Third, since a number of countries that have introduced formula funding have done so nation-wide, there are no control schools with which to make comparisons. Fourth, comparisons of changes in attainment scores over time are unsatisfactory tests since other policies aimed at improving attainment, for example accountability and high stakes testing polices, have been implemented at the same time. Fifth, it is difficult to disentangle SES-related funding from other sources of grants to schools. All of these points have similar applicability to SESEN.

Funding models must give serious consideration to determining their adequacy. In other words, there is a need for rigorous cost-benefit analyses. Here, a costing-out study carried out in Pennsylvania to determine the basic cost per-student of providing an education to meet the state's academic standards and assessments, is a possible way forward. Also, the School Improvement Grants recently instituted in the US, with their emphasis on funding having to show positive effects on important outcomes, provides a useful model (Federal Register, 2014). In a similar vein, Chile requires schools in receipt of supplementary funding to develop plans for educational improvement with specified educational outcomes (OECD, 2012).

Efficiency. While adequacy is judged in terms of the value of inputs needed to achieve a specified educational output, efficiency means achieving the highest feasible output from a given volume of resources. This requires selecting the least-cost combination of inputs for producing a given amount of educational output. Obviously, if it is difficult to ascertain the adequacy of funding, this sets limits on the capacity to determine its efficiency. Furthermore, schools' efficiency is difficult to measure for they produce multiple outputs, ranging from cognitive attainment to socialisation. Furthermore, the contribution of inputs that the school does not control,

in particular pupils' prior attainment and/or family characteristics, must be taken into account in assessing efficiency.

Economists distinguish two types of efficiency—internal and external. *Internal efficiency* is concerned only with the production of a given output (e.g. exam results) at a minimum feasible cost and makes no assumption about the social value of that output. *External efficiency* is concerned with using a given amount of resources to produce the combination of educational outputs, such as qualifications at different levels, specific skills, attitudes and behaviours that are most valued by society. Attempts to measure schools' efficiency are generally limited to internal efficiency— which considers only the relationship between inputs and schools' outputs (as far as these can be quantified).

Equity refers to the fairness with which resources in education are allocated and used. *Horizontal equity* is the equal resourcing of pupils with similar characteristics or learning needs, while *vertical equity* refers to differentially funding students according to differences in their needs (Levacˇicˊ, 2008). Horizontal equity is the more problematic concept for it could well be the case that some children in the high-SES rankings have similar needs to those from low-SES rankings, and vice versa. In other words, SES is not the only driver of school performance. Other factors that can contribute to student achievement include (importantly) the quality of teachers, the location of the school, the quality of school buildings and equipment, special educational needs unrelated to SES, ethnicity, cultural background, and competence in the language of instruction. One way of addressing this issue might be to develop a funding formula that takes account of students' learning needs, irrespective of how these arise –a radical suggestion! For example, the Gonski review in Australia recommended a model that takes account not only of low-SES background, but also indigenous background, limited English, disability and rural or small schools (Gonski, 2011). Israel, too, extended SES criteria to include immigrant status and periphery location status (i.e. schools located far from large cities) (Lavy, 2012).

Robustness refers to the need for an allocation mechanism not be open to distortions, in particular the possibility of 'gaming the system' by the deliberate falsification of information or by the employment of unreliable means of gathering data. A possible example of the former is when parents report on their occupations and income, knowing that their child's school would benefit financially from under-

reporting. Moral hazard is another source of distortion to be avoided. This may occur when there is information asymmetry, i.e. where the risk-taking party to a transaction knows more about its intentions than the party paying the consequences of the risk. More broadly, moral hazard occurs when the party with more information about its actions or intentions has a tendency or incentive to behave inappropriately from the perspective of the party with less information. Moral hazard also arises in a principal-agent situation, where one party, the agent, usually has more information about his or her actions or intentions than the principal does, because the principal usually cannot completely monitor the agent. This situation could arise in any funding arrangement that is conditional upon schools being required to implement certain programmes and to report on their outcomes. Pijl (2014) refers to 'strategic behaviour', which is inherent in input funding (described above), defined as 'all activities aimed at improving position while operating against general policy guidelines' (p.255).

Freedom from unintended consequences refers to funding mechanisms that lead to erroneous or distorted messges regarding the quality of education in particular schools. This has occurred in New Zealand, where there have been concerns that a school's decile ranking is widely perceived as being a proxy indicator for its educational quality or status and thus may carry a stigma in the case of low decile rankings. There is evidence that parents are seeking to enrol their children in high decile schools: for example, a study found that 40% of parents elected to enrol their children in a secondary school that was not their closest one – usually in a higher decile one (Wylie, 2012). It is difficult to envisage any system of differential funding based on SES not being subject to such unintended consequences, even when they are based on erroneous assumptions.

Regarding SWSEN, one of the (presumably) unintended consequences of some funding regimes is the possibility of working against inclusion. This can occur, for example, when SWSEN attending special schools are funded more generously per capita than SWSEN in regular schools. Likewise, when a 'bounty' is attached to students classified as disabled this may lead to an over-identification of such children and the risks of them being stigmatised.

A fitting conclusion to this section is Parrish's (2001) advice to policy-makers on the allocation of resources:

We need to support programs that attempt to assist students prior to their referral to more costly special education interventions – especially in light of ever increasing student standards and high stakes accountability. We also need to target supplementary special education aid to districts serving students with extraordinarily high cost special needs. At the same time it is essential to begin bridging the gap between general and special education programs and providers to more fully address the educational needs of all children (p.8).

9.6   Funding and Inclusive Education

- A recent comprehensive review of provisions to support inclusive education, carried out for the European Agency for Development in Special Needs Education by D'Alessio & Donelly (2013), makes the following points regarding funding:

- Procedures for identifying, classifying and categorising of disability may reproduce forms of discrimination, despite their overt purpose to do otherwise.

- Alternative approaches that focus on the requirements of learners with disabilities without the need to categorise them should be pursued. For example, Lebeer et al. (2010) have developed a framework of graded support in an attempt to move away from the medical model. This framework provides support at five levels in relation to students' functional difficulties and environmental barriers. This is similar to what occurs in Finland where, as Sahlberg (2011) points out, up to half of all students completing their education at age 16 have received som special/additional support at some point of their schooling (see also Mitchell 2014b, chapter 28).

- One of the main problems with funding inclusive education is not so much a lack of resources, but rather the inefficient use of existing resources (Slee, 2007) and the lack of clarity as to whether funds are deployed for the purposes for whch they were intended.

- Rather than struggling with limited resources, schools should develop networks of support involving collaboration between local stakeholders.

- The World Bank (Peters, 2004) provides some examples of measures that can be used to resource inclusive education. These include teacher education and professional development, using people with disabilities in the training processes, developing centralised resource centres, and community-based rehabilitation programmes.

- The development of inclusive education, rather than a reproduction of special schooling within the mainstream requires the management of resources in such a way as to improve the capacity of the entire mainstream school to respond to the diversity of the student population (Ainscow et al., 2006).

9.7   Summary

1. *The means of allocating resources to SWSEN, and the quantum of these resources, has long exercised policy-makers around the world, and continues to do so.*

2. *Funding is impinged on and, in turn impinges upon almost every issue explored in this review.*

3. *Historically, funding arrangements for special education have often been kept administratively separate from the mechanisms that govern fiscal resources for general education.*

4. *For the past decade or so, funding models for special education have been under review in many countries, driven by rising costs, concerns over efficiency and equity in the use of resources, and concerns about the incentives inherent in funding formulae for contra-indicated practices.*

5. *There is not a strong body of evidence to show that finance in itself has a direct and major effect on student learning outcomes.*

6. *Research has found, however, that particular types of expenditure do have a positive impact on student learning.*

7. *Overall, per student education expenditures for those who receive special education services in the US are 1.91 times greater than expenditures for students who received no special education services. This is comparable to other estimates.*

8. *.Three funding models can be identified: (a) demand (b) supply, and (c) output. Each one has advantages and disadvantages, with the consequence that many countries employ mixed funding models.*

9. *.Another taxonomy of funding models, based on the sources of funding for SWSEN, has five categories: (a) discretionary funding, (b) categorical funding, (c) voucher-based funding, (d) census-based funding, and (e) actual-cost funding.*

10. *Sources of funding for SWSEN vary considerably among countries, with different proportions coming from national, state and local educational authorities.*

11. *General principles that should be taken into account in determining the most appropriate funding model(s) for SWSEN include:*

    a. *the starting point should not be with how to fund special education, but rather with how to fund general education,*

    b. *Every funding model has strengths and weaknesses, incentives and disincentives, and positive and negative outcomes that may affect different students differentially, so a combination of funding models seems desirable.*

    c. *Resources should be allocated in ways that are coherent with, and promote, system policy.*

    d. *Arrangements to ensure accountability, including the monitoring of the use of resources and outcomes for children, should be included.*

12. *.In addition to meeting these principles, funding models should be transparent, adequate, efficient, equitable, robust and free from unintended consequences.*

13. *.In evaluating the worth of funding arrangements, consideration should be given to the extent they facilitate inclusive education.*

CHAPTER TEN

CURRICULUM[1]

The curriculum forms one of the three legs of students' educational experience, the other two being assessment and pedagogy. As we shall see, it constitutes one of the major challenges in implementing inclusive education (see Chapter Thirteen), it should form a significant component in preparing teachers to work with SWSEN (see Chapter Eighteen), and Universal Design for Learning should comprise the guiding principle in developing appropriate curricula for SWSEN (Chapter Twenty-three).

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[1] This chapter is in part drawn from Mitchell et al. (2010).

This chapter will examine different models of curricula for SWSEN, the trend towards requiring SWSEN to have access to the general education curriculum, approaches to adapting and modifying the general curriculum, and problems in doing so.

10.1   Different Models of Curriculum for SWSEN

In a wide-ranging analysis of what should constitute an appropriate curriculum for students with disabilities, Browder et al. (2004) commenced by recognising that 'curriculum, the content of instruction, has been one of the most controversial areas in education because determining what students will learn in school reflects both educational philosophy and societal values' (p.211). They go on to trace the evolution of different approaches to the curricula for students with disabilities.

The first approach was the *developmental model*, which emerged in the 1970s after PL94-142 established the right for all students with disabilities to have a free, appropriate education. In this model, educators adapted existing infant and early childhood curricula, on the assumption that the educational needs of students with severe disabilities could best be met by focusing on their mental age.

The second was the *functional model*, which was based on what was required to function in the daily life of a community. By the late 1980s, according to Browder et al., a strong consensus had emerged that curricula should focus on age-appropriate functional skills. This typically involved selecting from a range of such skills those which best fitted a particular student – hence the Individual Education Plan (IEP).

The third model was described as an *additive model*, initially reflecting a focus on including students with severe disabilities in general education classrooms and with a strong emphasis on social inclusion and student self-determination (reflected, for example in 'person-centred planning'). Browder et al. noted that with the continued efforts to promote inclusive education, this additive curriculum focus became extended to embrace ways of enabling students with disabilities to participate in the general education curriculum.

It is this third, and current, model that will form the basis of the following analysis.

10.2   Policies Requiring Access to the General Curriculum

With the advent of inclusive education policies and practices, many countries are addressing the need for students with special educational needs to have access to the general education curriculum. In this section, six countries' approach to this issue will be examined.

Australia. The Australian Curriculum provides advice to schools regarding their obligations under the *Disability Standards for Education* 2005 (Commonwealth of Australia, 2006) (the Standards) to ensure that all students with disability are 'able to participate in the curriculum on the same basis as their peers through rigorous, meaningful and dignified learning programs.' (Australian Curriculum, Assessment and Reporting Authority, Introduction to Student Diversity section, 2015). These *Standards* are intended to give students with disability the same rights as other students, including the right to education and training *'on the same basis'* as students without disability. They apply to education providers, including principals, schools and teachers. Principals and schools can meet their obligations under the *Standards* by giving consideration to *'reasonable adjustments'* to ensure that students with disability are provided with opportunities to participate in education and training on the same basis as students without disability. Before any adjustments are made, 'consultation' takes place between the school, student, and parents or carers.

More specifically, the *Standards* contain the following clauses relating to curriculum development:

6.2 (1)The education provider must take reasonable steps to ensure that the course or program is designed in such a way that the student is, or any student with a disability is, able to participate in the learning experiences (including the assessment and certification requirements) of the course or program, and any relevant supplementary course or program, on the same basis as a student without a disability, and without experiencing discrimination.

(2) If a student is enrolled in the course or program, the provider must:

   a.   consult the student, or an associate of the student, about whether the disability affects the student's ability to participate in learning experiences of the course or program, or any relevant supplementary course or program; and

b. in the light of that consultation, decide whether an adjustment is necessary to ensure that the student is able to participate in those learning experiences on the same basis as a student without a disability who is enrolled in the course or program; …

As noted by Cologon (c.2014), however, a 2012 review of these *Standards* revealed forms of 'micro- exclusion' of SWSEN in schools. Examples included: (a) refusal to make accommodations to the curriculum/activities, (b) exclusion from sports activities, (c) exclusion from excursions and school camps, and (d) exclusion from work experience placements (Department of Education, Employment and Workplace Relations, 2012). In a similar vein, a study of 20 children with visual impairments in mainstream preschool and primary school settings in Australia, found that while many teachers were aware of strategies to adapt the curriculum to be more inclusive, they lacked knowledge and support regarding preparing the environment and using visual aids (Brown et al., 2013). Additionally they lacked adequate resources and specialist support required for genuine inclusion.

Ireland. In a recent review of curriculum access issues for SWSEN in post-primary settings in Ireland, O'Mara et al. (2012) cite evidence that broadly supports the view that SWSEN can benefit from a flexible approach to curriculum adaptation and delivery. Examples include the Universal Design for Learning approach (see Chapter Twenty-three of this review), allowing these students more time to complete post-primary education, and using the internet to deliver an alternative curriculum. In a similar vein, a previous Irish report on inclusion concluded that useful strategies included flexible timeframes for work completion, differentiation of tasks, flexibility for teachers, time for additional support, emphasis on vocational as well as academic goals and flexible teaching-learning methodologies (Winter & O'Raw, 2010). As well, access to the curriculum involves how students with special educational needs interact with their peers, and how the classroom is structured; it is not just about including a student in a mainstream classroom

However, O'Mara et al. (2012) noted that while members of the teaching profession are generally enthusiastic about providing a broad curriculum for such students, they recognise the barriers and issues to successfully increasing access to the full curriculum. These include the responsibilities, attitudes and skills of educational staff, a lack of specialised teaching materials and aids, and a shortage of staff

resources. O'Mara et al. (2012) further noted that research also points out the need to balance any potential benefits of flexibility against the need for students to meet standard criteria for accreditation and certification, and to prevent adapted curricula from becoming too narrow. In another cautionary comment, they noted that SWSEN are not a homogeneous group and that their requirements regarding the curriculum often vary considerably.

New Zealand. The New Zealand Curriculum has inclusion as one of its eight guiding principles, with a focus on removing barriers to presence, participation, and achievement. It states that 'The curriculum is non-sexist, non-racist, and non-discriminatory; it ensures that [all] students' identities, languages, abilities, and talents are recognised and affirmed and that their learning needs are addressed (p.9). SWSEN with 'high needs' or 'very high needs' are eligible for services provided through the Ongoing and Reviewable Resourcing Scheme (ORRS). These students comprise approximately 3% of the student population. While these students are described as having 'significant physical, sensory, neurological, psychiatric. behavioural or intellectual impairment' (Education Review Office, 2010, p.3), the eligibility criteria for ORRS centre on a determination that they 'require intervention from specialists and/or specialist teachers for access to the New Zealand Curriculum, and/or adaptation of curriculum content' (Ministry of Education Eligibility Unit, 2004, p.3). It is envisaged that such students will need varying degrees of adaptation to curriculum content, ranging from total adaptation of all curriculum content to significant adaptation to almost all content or to most curriculum content. These would be specified in Individual Education Plans.

United States. Here, IDEA 1997, IDEIA 2004 and the No Child Left Behind Act of 2001 specified that all students, including those with significant cognitive disabilities, must have the opportunity to participate and progress in the general curriculum. As stated in the IDEIA 04, IEPs must incorporate 'a statement of measurable annual goals, including academic and functional goals, designed to … meet the child's needs that result from the child's disability to enable the child to be involved in and make progress in the general education curriculum' (IDEIA 2004 614(d)(I)(A)(i)(II)). In interpreting these requirements, Pugach & Warger (2001) observed that

> Although the law still maintains the right of each student with disabilities to an
> individually referenced curriculum, outcomes linked to the general education

program have become the optimal target. It is no longer enough for students with disabilities to be present in general education classrooms (p.194).

Even so, this requirement for students with special needs to access the general education curriculum is not always adhered to. For example, in a survey of 84 special education teachers in Iowa, Agran & Wehmeyer (2003) found that the majority were not frequently involved in curricular planning with regular teachers and half of the school districts represented did not have clear plans to involve students with disabilities in the general curriculum.

Scotland is another country that seeks to ensure that students with special educational needs can access the common curriculum framework, while at the same time ensuring appropriate and targeted support (Riddell et al., 2006). This arrangement has been in place since the early 1990s, when the 5-14 *Curriculum*, with its accompanying *Support for Learning pack*, came into force. This material endorsed five strategies for customising the curriculum: differentiation, adaptation, enhancement, enrichment and elaboration. According to Riddell et al., these strategies would enable teachers to plan a suitable curriculum for individual students, while ensuring that their learning was framed by the national curriculum guidelines.

In contrast with the US Australia, Ireland, Scotland and New Zealand, some countries have separate curricula: one for mainstream students and the other for students with special educational needs. The Flemish community in *Belgium* is one such country (Riddell et al., 2006).

England. Here a compromise has been reached between a specialised and the general curriculum, with the introduction in 2006 of 'P Scales' to support the structured progression of students with special educational needs working towards level 1 of the National Curriculum. [1] Beyond the level when P Scales are employed, Attainment Targets and Programmes of Study are designed to allow maximum participation in the National Curriculum for all students. To enable this to occur for those with special educational needs, teachers are encouraged to recognise that such students need time, support, carefully structured teaching programmes, and, in some cases, use of alternative means of communication. While modifications and exemptions to the national Curriculum can be written into students' Statements, it is

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[1] See also Chapter Eleven.

hoped that the need for these would be minimised. (See, for example,
http://www.bournemouth.gov.uk/Education/SEN/SEN_The_National_Curriculum.asp

10.3   Adaptations and Modifications to the General Curriculum

According to Mitchell (2014b), 'Making appropriate adaptations or
modifications to the curriculum is central to inclusive education' (p.303). He
described curriculum in an inclusive classroom as having the following features:

- It is a single curriculum that is, as far as possible, accessible to all learners,
  including those with special educational needs. (Conversely, special
  educational needs are created when a curriculum is not accessible to all
  learners.)

- It includes activities that are age-appropriate, but are pitched at a
  developmentally appropriate level.

- Since an inclusive classroom is likely to contain students who are functioning
  at two or three levels of the curriculum, this means that multi-level teaching
  will have to be employed; or, at a minimum, adaptations will have to be made
  to take account of the student diversity.

- To make the curriculum accessible, consideration should be given to the
  following alternatives in relation to content, teaching materials, and the
  responses expected from the learners, as noted by Jönsson (1993):

  - *modifications:* e.g., computer responses instead of oral responses;

  - *substitutions:* e.g., braille for written materials;

  - *omissions*: e.g., omitting very complex work;

  - *compensations*: e.g., self care skills, vocational skills.

Mitchell went on to give an example of curriculum differentiation in South
Africa, where, a 'curriculum ladder' is used to indicate how to adapt work according
to the strengths and needs of individual learners (Department of Education, 2005). In
spelling, for example,

- in step 1 educators ascertain if learners can work at the same level as their
  peers;

- in step 2 the learners may be able to do the same activity but with adapted
  expectations (e.g., fewer words);

- in step 3 they may be able to do the same activity but with adapted expectations and materials (e.g., matching words to pictures);

- in step 4 they may be able to do a similar activity but with adapted expectations (e.g., using words that are functional to the learners' environment);

- in step 5 they may be able to do a similar activity but with adapted materials (e.g., using a computer spelling programme);

- in step 6 they may be able to do a different, parallel activity (e.g., learning a computer programme with a spell check);

- in step 7 they may be able to carry out a practical and functional activity with assistance (e.g., playing with a word puzzle, flash cards etc., possibly assisted by a peer or a teaching assistant).

Other examples of how curricula can be made accessible to SWSEN can be found in Ireland, where the National Council for Curriculum and Assessment (2007) provides guidelines for teachers of students with mild general learning disabilities. The Home Economics booklet, for example, contains advice on dealing with students' reading difficulties, suggesting strategies such as the following:

- Provide alternative forms of information using visual presentation of material.

- Source recipes that show the method in a picture sequence.

- Ask the student to pick out the parts of the text he/she can read and to highlight relevant information.

- Number key points, use a favorite pen, and underline using colors.

- Avoid presenting the student with pages from a textbook by giving modified worksheets (with diagrams) or verbally delivered instructions.

- When photocopying, enlarge the text, scan color pictures, and enlarge diagrams or sketches so that theyare easier to read.

- Choose measuring jugs and weighing scales that are easy to use and easy to read. Use the metric system and do not introduce the imperial system. For some students it might be worth considering using the American cup system.

- Teach students how to read a weighing scales and a measuring jug, and to distinguish between measuring solids and liquids (p.5).

Several researchers have investigated ways in which IEPs can be connected with the general curriculum. For example, Fisher & Frey (2001) described a study in which students with 'significant disabilities' accessed the core curriculum in several regular classrooms. The authors concluded that, despite there being 'a disconnect between the IEP and curriculum and instruction' (p.148), 'the findings… indicated that students with significant disabilities can and do access the core curriculum with appropriate accommodations and modifications' (p.155). These accommodations and modifications are worth quoting at length:

> An accommodation is a change made to the teaching or testing procedures in order to provide a student with access to information and to create an equal opportunity to demonstrate knowledge and skills. Accommodations do not change the instructional level, content, or performance criteria for meeting standards. Examples of accommodations include enlarging the print, providing oral versions of tests, and using calculators.
> A modification is a change in what a student is expected to learn and/or demonstrate. A student may be working on modified course content, but the subject area remains the same as for the rest of the class. If the decision is made to modify the curriculum, it is done in a variety of ways, for a variety of reasons, with a variety of outcomes. Again, modifications vary according to the situation, lesson or activity. The four most common ways are listed here:
> Same, only less – The assignment remains the same except that the number of items is reduced. The items selected should be representative areas of the curriculum. …
> Streamline the curriculum – The assignment is reduced in size, breadth, or focus to emphasize the key points. …
> Same activity with infused objective – The assignment remains the same, but additional components, such as IEP objectives or skills, are incorporated. This is often done in conjunction with other accommodations and/or modifications to ensure that all IEP objectives are addressed. …
> Curriculum overlapping – The assignment for one class may be completed in another class. Students may experience difficulty grasping the connections between different subjects. In addition, some students work slowly and need additional time to complete assignments. This strategy is especially helpful for both of these situations…. (p.157).

Clayton et al. (2006) described a four-step process for enabling students with significant cognitive disabilities to access the general curriculum. Step 1 involves identifying the appropriate content standard and what is the most basic concept or critical function that the standard defines. The second step is to define the learning outcome of instruction in a particular unit for all students and then consider the ways in which the complexity of what is required may be adjusted for students with significant cognitive disabilities. Step 3 involves identifying the instructional

activities, ensuring that students with significant cognitive disabilities have equitable access to instruction and the curriculum provided to other students. The final step requires the targeting of specific objectives from the IEP for instruction within the unit. Clayton et al. noted that in addition to grade-level curriculum standards, students with significant cognitive disabilities often need instruction in such areas as basic communication, motor skills, and social skills. They argued that 'by embedding these skills within the context of general education activities, the teacher gives students access to the curriculum as required by IDEA 2004 and NCLB, while still providing ongoing instruction on those essential basic skills' (p.25).

With particular reference to the unique needs of students with mental retardation in accessing the general curriculum, Wehmeyer et al. (2002) presented a multi-step, multi-level decision-making model. It involves three levels of action (planning, curriculum, and instruction), three levels relating to the scope of instruction (whole school, partial school, and individualised), and three levels of curriculum (adaptation, augmentation, and alteration). At one extreme, this model suggests that some students have extensive needs for support, significant alterations to the general curriculum, and individual teaching; at the other extreme, some have only intermittent needs for support, and require minor adaptations to the general curriculum and a school-wide implementation of high quality instructional strategies.

Other writers who have examined ways in which students with special educational needs can access the general curriculum include Sullivan (2003), who suggested that teachers should augment the general curriculum rather than replace it for such students; Udvari-Solner (1996), who described a process for designing curricular adaptations; Udvari-Solner & Thousand (1996), who outlined ways of creating responsive curricula for inclusive schools; and Janney & Snell (1997), who looked at curricular adaptations for students with moderate and severe disabilities in regular elementary classes.

10.4   Differentiation

Underlying the preceding section is the principle of *differentiation*. This is the process of varying content, activities, teaching, learning, methods and resources to take into account the range of interests, needs and experience of individual students (National Council for Curriculum and Assessment, 2007, p8). Differentiation is based

on the premise that one size does not fit all and that it behooves teachers to adapt the curriculum and instruction to student differences.

Perhaps the best-known advocate of differentiation is Carol Ann Tomlinson, author of The *differentiated classroom*: *Responding to the needs of all learners* (Tomlinson 2014). She asserts that teachers can differentiate three aspects of the curriculum: content, process, and products. As summarised by Willis & Mann (2000), these comprise:

- Content refers to the concepts, principles, and skills that teachers want students to learn. All students should be given access to the same core content, teachers addressing the same concepts with all students but adjusting the degree of complexity. Content also refers to the means teachers use to give students access to skills and knowledge, such as texts, lectures, demonstrations, and field trips, which can be varied as well. For example, a teacher might direct an advanced learner to complex texts, Web sites, and experts to interview, while providing a student of more limited ability with reading buddies, videos, demonstrations, and other ways of making information more accessible.

- Process refers to the activities that help students make sense of the ideas and skills being taught. Teachers can modify these activities, Tomlinson advises, to provide some students with more complexity and others with more scaffolding, depending on their readiness levels. Like content, process can be varied by student interest and learning preferences as well.

- Products refers to culminating projects that allow students to demonstrate and extend what they have learned. They reveal whether students can apply learning beyond the classroom to solve problems and take action. Different students can create different products, Tomlinson suggests, based on their readiness levels, interests, and learning preferences. For example, some students might work alone on a product, while others might work in groups.

Differentiation can be facilitated by such strategies as the following, according to Tomlinson:

- Flexible grouping.
- Tiered activities.

- Stations: Using stations in different parts in the classroom where students work on various tasks simultaneously.

- Compacting: teachers assess students before beginning a unit of study or development of a skill and allow those who do well on the preassessment not to continue work on what they already know.

- Agendas: these are personalised lists of tasks that a student must complete in a specified time, usually two to three weeks.

- Orbital studies: these are independent investigations, generally lasting three to six weeks, which revolve around some facet of the curriculum. Students select their own topics, and they work with guidance and coaching from the teacher.

- Choice boards: work assignments are written on cards that are placed in hanging pockets. By asking a student to select a card from a particular row of pockets, the teacher targets work toward student needs yet allows student choice.

10.5 Problems in Accessing the General Curriculum

Ensuring that students with special needs can access the general curriculum, while at the same time having their essential needs met, is far from being unproblematic. In their recent review of special education in the ACT, Shaddock et al. (2009), for example, noted that several submissions to the review pointed out that 'what a student with a disability learns when participating in a lesson or course may not be what they actually need to learn' (p.66). This becomes particularly evident when the gap between such students' performance and that of their peers is too great, when the students lack the necessary skills to keep pace with the rest of the class, and when the focus of the teacher is more on getting through the course than on the mastery of essential content by all students.

In a similar vein, Karnoven & Huynh (2007) observed that evidence is suggesting that curricula for students with significant disabilities have begun to 'shift away from functional approaches seen in the 1980s and 1990s to include more academics' (p.275). They thought that it was encouraging that 97% of the 292 IEPs for students with significant disabilities in their study contained academic objectives.

A more critical perspective is offered in a recent book by Farrell (2010), who argued that 'a special curriculum may differ from a regular curriculum with regard to: the balance of subject and areas; and the balance of components of subjects; and the

content of certain areas of the curriculum' (p.3). He went on to put 'a case for a distinctive curriculum for some pupils' (p.99), pointing out that in England, the DfES recognises that the needs of students with moderate learning difficulties 'will not be able to be met by normal differentiation and the flexibility of the National Curriculum' (DfES, 2005, p.6).

10.6   Summary

1. *Approaches to conceptualising curricula for students with disabilities have moved from a developmental model in the 1970s, through a functional model in the 1980s and 1990s, to the contemporary model of embracing ways of enabling such students to participate in the general education curriculum.*

2. *In the US, IDEA 1997, IDEIA 2004 and the No Child Left Behind Act of 2001 specified that all students, including those with significant cognitive disabilities, must have the opportunity to participate and progress in the general curriculum. Many western countries have the same policies.*

3. *To make the curriculum accessible, consideration should be given to the following alternatives in relation to content, teaching materials, and the responses expected from the learners: (a) modifications (e.g., computer responses instead of oral responses, enlarging the print), (b) substitutions (e.g., Braille for written materials); (c) omissions (e.g., omitting very complex work); and (d) compensations (e.g., self care skills).*
   Other modifications can include (a) expecting the same, but only less, (b) streamlining the curriculum by reducing its size or breadth, (c) employing the same activity but infusing IEP objectives, and (d) curriculum overlapping to help students grasp the connections between different subjects, for example.

4. *In accepting the principle of making the general curriculum available to all students, attention must be paid to differentiation and multi-level teaching.*

CHAPTER ELEVEN

ASSESSMENT [1]

In Chapter Ten, we saw how the trend in western countries was for SWSEN to participate and progress in the general curriculum, albeit with appropriate modifications and adaptations. In this chapter, parallel issues will be explored with respect to assessment, namely the extent to which SWESEN are expected to participate in a country's national or state assessment regimes and what, if any, alternate assessment procedures are permitted. Both trends are part of the wider concern for standards-based reform in education that is dominating much of the educational and political discourse around the world .[2] The vast bulk of literature on modified and alternate assessment has emanated from the US and this section of the review reflects that.

11.1   Policies Requiring Access to General Education Accountability Systems

United States. Until recently, in the US, accountability in special education was defined in terms of progress in meeting IEP goals. That all changed in IDEA 97, which required all students, including those with disabilities, to participate in their states' accountability systems. This was followed by a policy memorandum from the U.S. Department of Education (2000), to the effect that an exemption from a state's assessment programmes was no longer an option for students with disabilities. However, both IDEA 97 and the No Child Left Behind Act (NCLBA) of 2002 required the provision of alternate assessment for students who could not participate in state or district assessments with or without accommodations. Districts are permitted to measure up to 3% of their students using alternate assessments (1% against alternate achievement standards and 2% against modified standards – a distinction that will be described in more detail below). The use of alternate assessment is a decision to be made by a student's IEP team. To quote IDEIA, IEPs must include 'a statement of any appropriate accommodations that are necessary to measure the academic achievement and functional performance of the child on state- and district-wide assessments' (IDEIA, 2004, p.118). As well, the NCLBA stipulated

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[1] This chapter is mainly drawn from Mitchell et al. (2010) and Mitchell (2014b).

[2] See Chapter Eight.

that student performance be disaggregated by special education status, among others, and, to avoid sanctions, by 2013/2014 schools must show that students in various subgroups are making 'adequate yearly progress' toward mastering content standards.

At this juncture, it is worth quoting at length a personal communication from David Egnor, Assistant Division Director, National Initiatives, Research to Practice Division, Office of Special Education Programs, US Department of Education:

> … one of the main pushes in the U.S. particularly among special education administrators, but also teachers, is to develop standards-based IEPs. I believe that standards-based IEPs are becoming much more attractive from an administrative point of view as a direct result of our country's increasing focus on standards-based educational reform … and which will ratchet up even further under the Obama administration. That is, requiring standards-based IEPs for every student with a disability (not currently required for all students with disabilities, although things are moving that way) provides a way, from an administrative perspective, to more efficiently administer and monitor special education service delivery and to do so within a standards-based accountability environment, where, in the past, special education practice historically focused more on individualized services and outcomes for students with disabilities. My view is that the growth of standards-based IEPs in the U.S. is a clear sign that special education practice is undergoing fairly significant changes that are directly tied to standards-based reform under the ESEA/NCLB and the next iteration of our main federal education law currently under consideration in the US Congress. I think that what we are seeing with regard to standards-based IEPs is an outgrowth of the special education inclusion movement, where as a field special education attempts to make the general education environment more accessible to students with disabilities. Given the focus on standards-based educational reform, it is not surprising that special education administrators, in particular, seek a way to join with the standards-based movement through the IEP development process and, as a result, students' IEPs are emphasizing general education standards more and more. Although a standards-based IEP should not limit the services a student receives (just standardize, to some extent, the educational outcomes we expect), I think that this movement may be unintentionally limiting services for some students with disabilities. I also think that more work needs to be done to explicate how individualization (equity) for students with disabilities can co-exist within the growing context of standards-based reform (excellence).

According to Defur (2002), the thinking behind the earlier requirements was two-fold. Firstly, it was assumed that higher expectations would lead to higher achievement for students with disabilities. Previously, the educational progress of such students had been limited by low expectations, which in turn narrowed their access to the general curriculum and to higher achievement. The second assumption was that assessment information on students with disabilities would lead to improved

instructional programmes, which in turn would lead to improved student outcomes. It would seem that this rationale still applies.

England and Wales. In England, tasks and tests set for assessment at the end of Key Stages 2 and 3 (for students aged 11 and 14, respectively) are designed to monitor attainment targets for each of the National Curriculum subjects, and are expected to be accessible to the vast majority of students, including SWSEN. However, those children in Key Stage 2 working at level 1 or below of the National Curriculum eight-level scale are assessed by teacher assessment alone. Similarly, at Key Stage 3, students working at or below level 2 of the National Curriculum scale are assessed by teacher assessment and not by statutory national testing. If a student's statement of special educational needs modifies the statutory assessment arrangements, the provisions within the statement should be followed in respect of the statutory tests and tasks. With regard to the GCSEs and GCE A levels, although the same examinations are available for SWSEN as for other students, special arrangements in examinations may be made for some of them. The nature of these arrangements is determined according to the assessment needs of the individual student, but must not give him or her an unfair advantage over other students. Some may be awarded extra time to complete the assessment task, or may be permitted to take supervised breaks or rest periods during the examination. For visually impaired students, the visual presentation of the papers may be changed by, for example, the use of large print or simplified layout of the examination paper, or by the use of braille versions of the papers. Other candidates may have questions read to them; flashcards may be used to assist hearing-impaired candidates in mental arithmetic tests; or typewritten, word processed or transcribed responses may be accepted from students who are unable to write. Some candidates may also be allowed to take their examinations at a venue other than the examination centre, for example, at home or in hospital (see http://www.inca.org.uk/wales-sources-special.html#31)

In England, too, the 'P Scales', referred to in Chapter Ten, can also be employed to provide a means of assessing students with special educational needs for accountability and school improvement purposes, prior to them becoming eligible for assessment on national instruments. These P Scales have eight levels against which students' progress can be mapped. However, Riddell et al. (2006) while recognising that P Scales are helpful for curriculum planning, noted that 'whether they will be

useful in terms of tracking and comparing the progress of pupils with special educational needs has yet to be fully assessed' (p.5).

Scotland. According to Riddell et al. (2006), in Scotland there are 'ongoing difficulties in devising a national system of assessment which is able to recognise the progress of all pupils' (p.5). The Standard Grade system, they pointed out, is regarded as too difficult for some students with special educational needs, particularly those with significant difficulties in numeracy and literacy.

11.2   Adaptations, Modifications and Alternate Assessment

Geenen & Ysseldyke (1997) identified six types of accountability systems relating to the extent to which students with disabilities are included in assessment regimes:

Total inclusion. This type establishes a single set of standards, with one assessment programme for all students, including those with disabilities. At the time of writing [1997], two US states had developed portfolio-assessment programmes that covered all students.

Partial inclusion. Here there is one set of standards for all students, with alternate or modified standards for students with disabilities. Many states were adopting this arrangement.

Dual systems. This type involves two sets of standards: one for students without disabilities and another one for students with disabilities, the latter usually focussed on 'functional' objectives.

Multiple systems. Here there is one set of standards for students without disabilities and multiple sets of standards for those with disabilities, usually based on their disability category.

Total exclusion. In this type, students with disabilities are excluded from standard-setting efforts, state-wide assessments, and data-based reporting procedures. Usually, the IEP is seen as sufficient for accountability purposes, despite the difficulty in aggregating their outcomes.

System-based. This sets standards on a system rather than an individual basis. Here, students with disabilities 'count' in the overall statistics.

Research relating to one or more of the models as outlined by Geenen & Ysseldyke (1997) has been reported in the literature. For example, in a paper by Defur (2002), the Virginia state assessment programme was outlined. This state employed

the total inclusion model, albeit with accommodations/modifications/exemptions in parts of the tests for students with disabilities (the author pointed out that after her study, Virginia eliminated the use of total exemptions). It is interesting to note that 98 special education administrators in the state identified some intended and unintended consequences of this assessment policy. Among the intended consequences were (a) 'some degree of benefit for students with disabilities' - reported by 83% of the respondents, (b) 'access to the general curriculum' (73%), and (c) 'improved daily performance by students with disabilities' (but only 21% noted this) (p.206). There were also unintended, negative consequences of the policy. These included (a) higher rates of academic failure (reported by 51% of the administrators), (b) lower self-esteem among students with disabilities (50%), and (c) concerns that these students would experience higher drop-out rates (44%). As well, some were of the opinion that standards should be lowered (33%) and that accommodation options should be increased (37%). And, finally, 55% of the respondents expressed the belief that special education teachers were not adequately trained to assist students with disabilities to meet Virginia's assessment standards.

In full inclusion assessment models, with no exemptions or accommodations permitted, there is a risk that 'the accountability procedures may have the incidental effect of discouraging schools from taking on children who are likely to perform poorly in examinations, of encouraging schools to expel children whom they find difficult to teach, or of tempting schools to omit children with learning difficulties from testing programmes' (OECD, 1999). As proof of this danger, OECD cited a study by Thurlow in 1997 in which it was found that two-thirds of students with disabilities in US schools had been excluded from a National Assessment of Educational Progress. Thus, 'high stakes' assessments, and associated 'league tables' can have the effects of jeopardising inclusive education (Dyson, 2005; Slee, 2005; McLaughlin & Jordan, 2005). As Watkins & D'Alessio (2009) pointed out, this risk can be exacerbated by the effects of international comparative studies of educational standards – most notably OECD's PISA studies.

A second study, involving the *partial inclusion model*, was reported by Browder et al. (2004). Subject specialists and experts in severe disabilities from 31 US states were surveyed and interviewed regarding their views on the extent to which alternate assessment content was aligned with academic and functional curricula in

maths and the language arts. The findings were quite mixed, with some states rated as having a high degree of alignment and some having missed the mark. The authors also noted that their results suggested that the alternate assessments included in their study had a strong focus on academic skills, but also reflected an approach that linked academic and functional skills, one which they referred to as 'a blended curriculum approach' (p.221). Browder et al. concluded with the recommendation that states should include both content area specialists and experts in severe disabilities in validating performance indicators used in alternate assessment. In another paper by the same authors (Browder et al., 2003), some lessons to be drawn from their research are outlined. These included the need to develop research into (a) ways of teaching students with severe disabilities the more advanced academic skills that were being expected under the US legislation, (b) the impact of alternate assessment in general, and (c) the optimal way of blending functional and academic curricular priorities, and hence assessment approaches. And, finally, they argued that 'We also need to avoid a transformative approach in which academics become the replacement curriculum' (p.179).

In a similar vein, Ford et al. (2001) posed some pertinent, albeit rhetorical, questions. Firstly, when a state develops separate standards for students with disabilities, is it suggesting there is no overlap between the 98% of the students included in the regular assessment and the 2% who are not? Secondly, when states elect to use identical standards for those participating in alternate assessment, 'does this mean that all students should be held to the same set of standards – and that these are the only valued areas of learning?' (p.215).

In another US study involving Geenen & Ysseldyke's (1997) partial inclusion model, Ketterlin-Geller et al. (2007) investigated the consistency of test accommodations across 38 3rd grade students' IEPs, teachers' recommendations, and students' performance data. They defined accommodations as representing 'changes in the medium through which information is presented, the response formats, the external environment, or the timing of the testing situation that are designed to mediate the effects of a student's disability that inhibit understanding or expression of domain-specific knowledge' (p.194). They found significant differences among all three of the comparisons, i.e., students' IEPs, teachers' recommendations, and students' performance data. For example, individual teachers often made

accommodation decisions without support from the IEP team and there was little correspondence between the accommodations listed on IEPs and teacher recommendations. As Ketterlin-Geller observed, 'IEPs were more likely to make errors of omission, whereas teachers were more apt to make errors of commission in recommending accommodations' (p.203). With respect to the latter errors, the researchers commented that by making decisions without recognition of the IEP, teachers may be subverting the legal requirements and that this may significantly affect student success by withholding accommodations or by providing unnecessary accommodations. This, they concluded, compromises both students' needs and the accountability systems set up to ensure that their needs are being met. 'The current system', they stated, 'needs improvement' (p.205).

In yet another US study, Karnoven & Huynh (2007) investigated the relationship between IEP characteristics and test scores on an alternate assessment instrument for students with significant cognitive disabilities. They found that whereas the curriculum emphasised in IEPs and alternate assessments were aligned for some students, for others they were not. They concluded that teachers of such students, who may have operated outside the general education curriculum for many years, 'need professional development on state academic standards, alternate achievement standards, and curriculum design that goes beyond functional domains' (p.291). As well, they argued that there is a need to create standards-based IEPs and that test developers must contribute to improving the curriculum-assessment link.

For other studies of alternate assessments and some attendant concerns, see papers by Browder et al. (2003); Crawford & Tindall (2006), Kohl et al. (2006), NAREM Associates, in cooperation with OECD (2005), Rabinowitz et al. (2008), Salend (2008), Thompson & Thurlow (2000), Turner et al. (2000), and Zatta & Pullin (2004).

In the US, the National Center on Educational Outcomes has published extensively on alternate assessment for students with significant cognitive disabilities (see Lazarus et al., 2010a and 2010b; Olson, et al., 2002; and Quenemoen et al., 2003). These documents are too lengthy to summarise here, but suffice to say they provide information on States' accommodation policies on alternate assessments and guidelines for such assessments. Other useful guides to alternate assessment are to be found in the recently published book by Bolt & Roach (2009) and in publications

from the US Department of Education, particularly those relating to its policy for including students with disabilities in standards-based assessment used in determining 'adequate yearly progress' (Technical Work Group on Including Students with Disabilities in Large Scale Assessments, 2006).

11.3   Some Definitions of Assessment Accommodations and Alternate Assessments

Basically, there are two types of adjustments to nation- or state-wide assessments.

Assessments with accommodations. This involves making changes to the assessment process, but not the essential content. Braden et al. (2001) described accommodations as alterations to the setting, timing, administration and types of responses in assessments. Here, assessors need to distinguish between accommodations necessary for students to access or express the intended learning content and the content itself.

Alternate assessments. As defined by the US Department of Education (2003), alternate assessments are defined as assessments 'designed for the small number of students with disabilities who are unable to participate in the regular State assessment, even with appropriate accommodations' (p.68699*).* They refer to materials collected under several circumstances, including: teacher observations, samples of students' work produced during regular classroom instruction, and standardised performance tasks. Further, alternate assessments should have:

- a clearly defined structure,
- guidelines for which students may participate,
- clearly defined scoring criteria and procedures,
- a report format that clearly communicates student performance in terms of the academic achievement standards defined by the State, and
- high technical quality, including validity, reliability, accessibility, objectivity, which apply, as well, to regular State assessments.

Quenemoen et al. (2003) provided more detailed definitions and examples of the following alternate assessment approaches:

Portfolio: a collection of student work gathered to demonstrate student performance on specific skills and knowledge, generally linked to state content standards. Portfolio contents are individualized and may include wide ranging

samples of student learning, including but not limited to actual student work, observations recorded by multiple persons on multiple occasions, test results, record reviews, or even video or audio records of student performance…

IEP-linked body of evidence: Similar to a portfolio approach, this is a collection of student work demonstrating student achievement on standards-based IEP goals and objectives measured against predetermined scoring criteria…This evidence may meet dual purposes of documentation of IEP progress and the purpose of assessment.

Performance assessment: Direct measures of student skills or knowledge, usually in a one-on-one assessment. These can be highly structured, requiring a teacher or test administrator to give students specific items or tasks similar to pencil/paper traditional tests, or it can be a more flexible item or task that can be adjusted based on student needs. For example, the teacher and the student may work through an assessment that uses manipulatives and the teacher observes whether the student is able to perform the assigned tasks….

Checklist: Lists of skills, reviewed by persons familiar with a student who observe or recall whether students are able to perform the skills and to what level. Scores reported are usually the number of skills that the student is able to successfully perform, and the settings and purposes where the skill was performed.

Traditional (pencil/paper or computer) test: Traditionally constructed items requiring student responses, typically with a correct and incorrect forced-choice answer format. These can be completed independently by groups of students with teacher supervision, or they can be administered in one-on-one assessment with teacher recording of answers.

For useful descriptions of alternate assessments for students with significant cognitive disabilities, see Perner (2007), who gave examples of various States' methods, such as portfolio and performance-based assessments referred to above.

11.4   Some Evidence on Assessment of SWSEN

In a recent international review of curriculum access issues for SWSEN, O'Mara et al. (2012) summarised research on the assessment of SWSEN, as follows:

- Effective instruction for students with special educational needs requires regular assessment and evaluation (Yeh, 2006; Mid-Continent Research for Education and Learning, 2000).

- In the UK, MacBeath et al. (2006) concluded that curriculum and testing pressures, particularly at key stages, can lead to marginalisation of SWSEN. A need to maximise test results for school performance assessment means such students may be 'disapplied', either formally or informally, from taking the standard assessment tests.

- It is important that assessment should measure meaningful outcomes, not just those that are easy to measure Maddison (2002), for example, found that outcomes- based assessment could have positive effects on student progression in a UK special school.

- In their survey of all special educational needs teachers of students with severe intellectual disabilities in Finland, Kontu & Pirttimaa (2008) reported that up to 22 different methods or tools were used for assessing post-primary students, both as an initial assessment to devise IEPs, and also as a way of assessing the student's progress

- Johnson et al (2007) reviewed high school certification (diploma) options for youth with disabilities across all 50 US states. They found that there were various diploma options available to students with disabilities across the US, including certificates of completion or attendance, IEP diplomas and occupational diplomas. Some states required students to pass minimum competency examinations to graduate, with accommodations for those with disabilities including exemption from the testing programme and the use of different standards or tests. These high stakes tests, however, which can have lifelong consequences for the student, have been criticised for being unfair or unreasonable for SWSEN. Nelson (2006) also noted that although high stakes testing could improve exposure to the general curriculum, because of increased work to prepare for the tests, parents and educators surveyed were concerned that such tests could increase stress for the student and limit their broader subject selection.

- There is some concern that assessing students with special educational needs using different methods or tools from those used for students without could be unfair on the latter (Brackenreed, 2004), or it may be unfair for the former if they are offered different diploma assessments or final certification programmes (Johnson, et al., 2007; MacBeath et al., 2006; Nelson, 2006).

Thus, Brackenreed (2004) reported on interviews with 98 grade nine and ten English language teachers in Canada. In general, they felt that that accommodations made for testing students with sensory impairments, or accommodations allowing students to respond in alternative ways, such as providing verbal rather than written answers, did not change the nature of what was being tested and therefore allowed a comparison between the attainment of SWSENs and those without who did not use the test accommodations. Most teachers, however, perceived that alternative test formats that changed the nature of what was being asked, such as reducing the number of items on a page, rewording questions, and teaching test-taking skills, or making other accommodations such as extending time limits, or reading a test aloud, changed the nature of what was being assessed or contaminated the validity of the instrument. As a result, they did not feel these adapted tests were a fair assessment of learning outcomes for SWSEN.

- A survey of state directors of special education in the US found improved numbers of students with special educational needs meeting grade level proficiency. This is due in part to better alignment of IEPs with standards, increased access to standards-based instruction and improved professional development (Thompson et al., 2005).

- 'Rapid Assessment' (RA) is designed to enable teachers to identify where students need additional help before it becomes a problem and to give rapid feedback to the students. Yeh (2006) reported that staff from eight US schools (four of which were post-primary) who used RA said it had positive effects on the self-esteem, motivation and engagement, and achievement of all school students, with particular benefits in increasing achievement and reducing stress for SWSEN. Teachers of special education and emotionally or behaviourally disturbed students believed RA programmes helped them to handle the logistical task of meeting the needs of different students. The improved student motivation was because of the individualised curriculum, rapid feedback of results, and opportunities for students to feel successful; and having more control over their learning, which students found enjoyable. Improved student motivation reportedly reduced behavioural problems and led to improved reading and mathematics achievement, with about 80% becoming

able to read independently, work independently on maths problems, or perform self-assessments.

- Douglas et al (2009) reviewed the international literature on best practice models to help blind and visually impaired children access the mainstream curriculum. They suggested that professionals should be cautious about using and interpreting mainstream assessment tools for students with visual impairment, and should use specialist procedures where appropriate, such as assessing Braille reading. The review authors specifically recommended that teachers should refer to the procedures described by the Irish Advisory Group on Reasonable Accommodations (2007) when considering the public examination access needs of pupils with sensory needs.

- No studies were found that assessed the impact of using the same tools or standards for assessment for SWSEN and those without special educational needs on educational attainment or employment options.

- No studies were identified that determined who should assess SWSEN, such as class teachers, SENCOs or teaching assistants; how frequently they should be assessed; or what should be measured.

11.5   Formative Assessment

As might have become apparent in the foregoing, there is a tension between the need for schools to ascertain students' level of achievement for accountability purposes and the need to take account of what is best educationally for SWSEN (Bauer, 2003). This distinction is sometimes referred to 'assessment *of* learning' (or summative assessment), compared with 'assessment *for* learning' (or formative assessment) (Harlen, 2007; Watkins & D'Alessio, 2009). If the purpose is to compare students against pre-determined standards, then the former is best suited; if the purpose is to improve learning, the latter should be used.

Mitchell (2014b) has summarised the distinction between summative and formative assessment. Briefly, *summative* assessment is concerned with evaluating learners' performances at the end of a module or a course. The results count towards making a final judgement on what the learners have achieved. *Formative assessment* evaluates students' progress during a course or module so that they have opportunities to improve, and teachers to 'fine tune' their teaching. In its pure form, formative

assessment does not contribute to the overall grade. However, sometimes assessment serves both summative and formative purposes. How one classifies the two types depends on the extent to which assessment leads to feedback that enables learners to improve their performances. The more it does this, the more justified is its classification as formative assessment.

There is evidence to suggest that formative assessment has a positive effect on learning outcomes for SWSEN. Three US studies will serve as examples of such research. Firstly, in an early meta-analysis of 21 studies of the effects of formative evaluation, an effect size of 0.70 was obtained. However, when formative evaluation was combined with positive reinforcement for improvement (i.e., feedback), the effect size was even higher at 1.12 (Fuchs & Fuchs, 1986). Secondly, a study using formative evaluation system with low-achieving students in a large urban school system resulted in significant gains in math achievement (Ysseldyke, 2001). Thirdly, there is evidence to show that teachers trained in formative assessment are more open to changing their instructional strategies to promote learners' mastery of material (Bloom et al., 1992). Furthermore, it has been shown that without formative assessment, teachers' perceptions of learners' performances are often erroneous (Fuchs et al., 1984).

Finally, in a related vein, in recent years, the European Agency for Development in Special Needs Education has argued that assessment processes can either contribute to or hinder the process of inclusion (see various documents on the Agency's website: www.european-agency.org)Thus, it has focused on what it refers to as 'inclusive assessment', which it defines as:

> an approach to assessment in mainstream settings where policy and practice are designed to promote the learning of all pupils as far as possible. The overall goal of inclusive assessment is that all assessment policies and procedures should support and enhance the successful inclusion and participation of all pupils vulnerable to exclusion, including those with SEN (Watkins, 2007, p.47).

Educational policy-makers, then, should optimise both the needs of the system and those of its students in determining assessment policies.

11.6   Functional Behavioural Assessment

In the US, a major variant of the IEP is the 'Behavior Intervention Plan '(BIP), with its reliance on 'Functional Behavior Assessment' (FBA). BIPs came into force in

the US with the 1997 reauthorisation of IDEA, and were reiterated in the 2004 IDEIA. As described by Killu (2008) and Etscheidt (2006), BIPs consider the relationship between student learning and any behaviour problems they manifest that may impede their classroom performance or that of other students. A point of distinction between IEPs and BIPs is that the latter must not only focus on individuals, but must also address school-wide issues that serve as contextual factors that may contribute to the behavioural problems (Killu, 2008).

In a review of FBA, 22 studies focused on learners with or at risk for emotional and behavioural disorders were reported. These studies comprised a mix of antecedent-based interventions, consequence-based procedures and a combination of the two interventions. Regardless of the type of intervention, 18 of the 22 studies showed positive results, with clear reductions of problem behaviours and/or increases of appropriate behaviours (Heckaman et al., 2000).

The principles of FBA are not limited to behaviour, but in recent years have been extended to learning difficulties as well (Daly & Martens, 1997; Jones & Wickstrom, 2002; Duhon et al., 2004).

11.7   A New Approach to Assessment

An interesting approach to assessment of SWSEN has been developed in New Zealand. This has been outlined in two documents: *The New Zealand Curriculum Exemplars for Learners with Special Education Needs* and the accompanying booklet, *Narrative Assessment: A Guide for Teachers* (Ministry of Education, 2009a, 2009b). These were developed to support teachers working with students 'learning long-term at level 1' in *The New Zealand Curriculum* (Ministry of Education, 2007). The narrative assessment component has been outlined by Morton et al. (2012). They were particularly interested in approaches that focused on students' competence, building on the work of Carr and colleagues who developed the narrative approach to assessment (Carr, 2001; Cowie & Carr, 2009). Their aim was to support teachers to pay attention to the contexts that supported students to show that they were competent, to show what they knew and what they could do, to demonstrate their learning. Here is an example of part of a narrative:

> Molly is lots of fun. She prefers one-to-one attention from an adult at activities and will often leave an activity if other children come near or try to join. Molly loves music and movement and enjoys using the computer.

Molly started school this year and attends her local primary school. She is in a classroom of 16. Molly's strengths are her fascination with numbers and letters and her strong interest in books. Her school receives ongoing and reviewable resourcing schemes (ORRS) funding for Molly. She has global developmental delay and autism. Molly has motor planning difficulty, which means she needs support to work through a series of steps to complete a task. Molly has hyperlexia (a precocious ability to read words) but difficulty in understanding verbal language.

11.8 Summary

1. *Increasingly, SWSEN, including those with significant cognitive disabilities, are being expected to participate in their countries' national or state assessment regimes.*

2. *High stakes' assessments can have the effects of jeopardising inclusive education, a risk that can be exacerbated by the effects of international comparative studies of educational standards.*

3. *In the US, legislation since IDEA 1997 does not allow SWSEN to be exempted from their states' assessment programmes. Instead, educational authorities are required to provide alternate assessment for students who cannot participate in state or district assessments with or without accommodations. IEPs now must include a statement of any accommodations that are necessary to measure the academic achievement and functional performance of such students on state- and district-wide assessments.*

4. *The main types of alternate assessments comprise portfolios, IEP-linked bodies of evidence, performance assessments, checklists and traditional paper and pencil tests.*

5. *The assumptions underlying these provisions are twofold: (a) that higher expectations will lead to improved instructional programmes and (b) that these will lead in turn to higher student achievement.*

6. *.The requirements for all students to participate in state- and district-wide assessments have been shown in some research to have had unintended negative consequences for students with disabilities, including higher rates of academic failure, lower self-esteem, and concerns that they would experience higher drop-out rates.*

7. *Countries or states should include both content area specialists and experts in severe disabilities in validating performance indicators used in alternate assessment.*

8. *With the shift to all students being required to participate in their countries' national or state assessment regimes, teachers of SWSEN will need professional development on their country's or state's academic standards, alternate achievement standards, and curriculum design that goes beyond functional domains.*

9. *Formative assessment has been associated with positive outcomes for SWSEN and with improvements in teachers' perceptions of students' performances.*

10. *Functional assessment is increasingly being applied, not only to behaviour, but also to learning in general.*

11. *.In determining assessment policies, it is important to recognise and resolve as far as possible the tensions between measuring the health of the education system and protecting the interests of students with special educational needs. In other words, educational policy-makers should optimise both the needs of the system and those of its students in determining assessment policies.*

CHAPTER TWELVE

EVIDENCE-BASED PEDAGOGY[1]

Educators are increasingly expected to be responsible not only for helping students to achieve the best possible outcomes, but also for using the most scientifically valid methods to achieve them. Indeed, in the United States, the No Child Left Behind (NCLB) law requires teachers to use 'scientific, research-based programs', defined as: '(1) grounded in theory; (2) evaluated by third parties; (3) published in peer-reviewed journals; (4) sustainable; (5) replicable in schools with diverse settings; and (6) able to demonstrate evidence of effectiveness.' As well, NCLB requires each state to ensure that all learners (including those with disabilities) make 'adequate yearly progress', i.e., 'continuous and substantial improvement'. The commitment to evidence-based policies and practices in the US was also reflected in the President's Commission on Excellence in Special Education (2002) in the US, which recommended the establishment of *'long-term programs of research that support evidence-based practices' (p.61).* The recent establishment of centres specialising in gathering and disseminating evidence-based education policies and practices provides further support for the growing commitment to evidence-based education in the US (e.g., the What Works Clearinghouse. URL: www.whatworks.ed.gov)

This commitment is reflected in the UK, as well, where Michael Gove, the then Secretary of State for Education, had this to say in 2010:

> ... I want to see more data generated by the profession to show what works, clearer information about teaching techniques that get results, more rigorous, scientifically- robust research about pedagogies which succeed and proper independent evaluations of interventions which have run their course. We need more evidence-based policy- making, and for that to work we need more evidence.

Since 2010, there has been a project, Evidence-informed Policy and Practice in Education in Europe, with 34 partner organisations from 24 countries, together with four affiliates from outside Europe. This project aims to broker knowledge using

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[1] This chapter is based on Mitchell (2008, 2009 and 2014b).

common reference tools and approaches, as well as exchanging good practices, data and evidence from relevant European agencies and national-level resources.

In a similar vein, in Australia, the National Inquiry into the Teaching of Literacy (2005) asserted that 'teaching, learning, curriculum and assessment need to be more firmly linked to findings from evidence-based research indicating effective practices, including those that are demonstrably effective for the particular learning needs of individual children' (p.9). Similarly, the Victorian State Department of Education, as part of its 2015 Program for Students with Disabilities Review, had as one of its guiding principles that 'the school education provision for, or service delivery to, students with disabilities will draw on contemporary evidence-based practice.'

In their review of special education in the ACT, Shaddock et al. (2009) proposed 'increased accountability for the learning outcomes of students with a disability and the adoption of evidence-based policy to inform service development', arguing that 'data and evidence, not conviction and ideology, are the key considerations' (p.16).

Briefly, evidence-based teaching strategies may be defined as 'clearly specified teaching strategies that have been shown in controlled research to be effective in bringing about desired outcomes in a delineated population of learners' (Mitchell, 2014b, p.3).

12.1 Do SWSEN Require Distinctive Teaching Strategies?

The answer to this question is both 'Yes' and a qualified 'No.' Firstly, *yes*: some students – especially those with high or very high needs – do require some significantly different teaching strategies to those that educators in regular classes might usually employ. For example, some students with visual impairments are reliant on their tactile and auditory senses for learning and will require specialised techniques such as Braille and orientation and mobility training. Secondly, *no*: for the most part, SWSEN simply require good teaching. As some writers argue, there is little evidence to support the notion of disability-specific teaching strategies, but rather that all learners benefit from a common set of strategies, even if they have to be adapted to take account of varying cognitive, emotional and social capabilities (Kavale, 2007). What is required is the systematic, explicit and intensive application of a wide range of effective teaching strategies (Lewis & Norwich, 2005).

12.2   Criteria for What Constitutes Evidence

Ideally, evidence that a particular strategy works should be based on carefully designed research studies that meet criteria such as the following:

Treatment fidelity. The teaching strategy is fully described and there is evidence that it has been carefully implemented.

Behavioural outcomes. The study should include reliable and valid measures of the behavioural outcomes. When he selected the teaching strategies described in his recent book, Mitchell (2014b) relied heavily on various meta-analyses that have been reported in educational literature. Briefly, a meta-analysis synthesises the results from a range of similar research studies to determine the average effect of a particular intervention. Meta-analyses usually produce a numerical indicator, known as *effect size*. The larger the effect size, the greater is the impact of the intervention. An effect size of 1.0 indicates that learners receiving the intervention would achieve better than 84% of those who did not receive it; an effect size of 0.7 means that those receiving the intervention would do better than 76% of those who did not; an effect size of 0.3 means scores better than 62%, and so on. Most of the strategies selected by Mitchell had effect sizes between 0.3 and 0.7, with some over 1.0.

Learner characteristics. Studies should include clear descriptions of the learners' ages, developmental levels, and the nature and degree of any disabilities they may have. Ideally, research studies should focus on learners who are as homogeneous as possible. The more heterogeneous the sample studies, the more difficult it is for educators to decide which learners would benefit from the strategy.

Control of variables. The research should be designed to ensure that the outcomes are due to the intervention and not to any confounding variables such as the simple passage of time or a placebo effect. One would also want to be confident that the outcomes are not due to the effects of additional attention to the learners in the study or to the effects of repeated testing.

Freedom from contamination. There should be no, or minimal, 'contamination' which might affect the results of the study. In other words, it is important that nothing happens (outside of the intervention) that could affect the outcomes for either the experimental group or the control group. Of course, if events occur that affect both the experimental and the control groups, that is acceptable.

Acceptable side effects. Possible side effects should be assessed and should be positive, or at least not negative. For example, coercive means might be used to control certain learner behaviours, but they may cause heightened anxiety or even fear.

Theory-based. The psychological mechanisms or learning processes underlying the strategy should be clearly explained, thus enabling one to generalise it to other situations.

Follow-up. There should be been adequate follow-up after, say, six months, but preferably longer, to ascertain if the behavioural gains are maintained over time.

Research versus natural conditions. Ideally, the research should be carried out in everyday teaching environments, not just in research conditions. This is because it could well be that the research conditions are dramatically different from the actual conditions educators work in.

Peer review. The research should have been published in reputable journals after rigorous peer review.

Replication. The research should contain at least two studies (more for single-case studies) that have shown positive effects for the strategy; i.e., the research has been replicated, preferably by independent researchers.

Cost effectiveness. Clearly, for an intervention to be adopted it must not be excessively expensive. For example, the more the intervention depends on one-to-one treatment over a prolonged period, the less likely it is considered to be cost effective.

12.3   Evidence-based Teaching Strategies

By applying as many as possible of the above criteria, Mitchell (2014b) arrived at a total of 27 strategies, some of which included several sub-strategies. Although they are illustrated with reference to learners with special educational needs, almost all the strategies have general applicability.

Mitchell emphasised that he was not arguing for a single strategy or blueprint that all teachers should use. Rather, he felt that the most effective programmes are those that incorporate a variety of best practices. His strong advice was that educators should develop a repertoire of such strategies, nested within their own philosophy, personality, craft knowledge, professional wisdom, and, above all, their knowledge of the characteristics and needs of their students and their knowledge of local circumstances.

In this chapter, a total of 20 strategies are arranged under four headings, according to their predominant underlying assumptions about how learning takes place: social, behavioural, constructivist and mixed (Mitchell, 2014a).

12.3.1 Behavioural strategies

Five strategies focus mainly on changes in a learner's observable behaviours and emphasise the role of external stimuli, particularly the role of reinforcement and the role of the teacher in transmitting knowledge.

Behavioural approaches. Behavioural approaches focus on how events that occur either before (antecedents) or after (consequences) learners engage in a verbal or physical act affects their subsequent behaviour.

In a comprehensive review of meta-analyses involving 20 different intervention strategies, behaviour modification came out with the third highest effect size (after mnemonic strategies, reading comprehension and just ahead of Direct Instruction) (Forness, 2001). The effect size of 0.93 for behaviour modification represented the average of effect sizes for social outcomes (0.69) and academic outcomes (1.57)

Functional behavioural assessment. Functional behavioural assessment (FBA) is a subset of the behavioural approaches outlined above. In essence, it refers to the procedures used to determine the function or purpose of a learner's repeated undesirable behaviour and what leads to it being maintained.

In a review, 22 studies of FBA-based interventions for learners with or at-risk for emotional and behavioural disorders were reported (Heckaman et al., 2000). These studies comprised a mix of antecedent-based interventions (N=6), consequence-based interventions (N=6), a combination of antecedent-based and consequence-based procedures (N=4), and other related approaches (N=6). Regardless of the type of intervention, 18 of the 22 studies showed positive results, with clear reductions of problem behaviour and/or increases in appropriate behaviours. The studies also showed that the most common factors leading to inappropriate behaviours in children were (a) teacher attention to inappropriate behaviours and (b) learning tasks which were too difficult.

Review and practice. This requires planning and supervising opportunities for learners to encounter the same skills or concepts on several occasions. It is aimed at helping learners to 'internalise' concepts and skills once they have been initially

taught. This is particularly the case with basic skills that are taught hierarchically, so that success at any level requires the application of knowledge and skills mastered earlier (Rosenshine, 1983).

In Hattie's (2009) synthesis of two meta-analyses involving spaced and massed practice, he reported an effect size of 0.71, in favour of the former, observing that 'it is the frequency of different opportunities rather than merely spending "more" time on task that makes the difference to learning.' (p.185). In a comprehensive meta-analysis of 93 intervention studies targeting adolescents with learning disabilities, the single most important strategy was found to be explicit practice, defined as treatment activities related to distributed review and practice, repeated practice, sequenced reviews, daily feedback, and/or weekly reviews (Swanson & Hoskyn, 2001). Another synthesis examined 24 studies of effective interventions for building reading fluency with elementary students with learning disabilities. One of the main factors that emerged was multiple opportunities to repeatedly read familiar text independently and with corrective feedback. This led to improvements in the automatic processing of text and, hence, to improved speed and accuracy (i.e., fluency) (Chard, Vaughn & Tyler, 2002).

Direct Instruction. Direct Instruction (DI) is a multi-component instructional strategy centring on teacher-directed, explicit, systematic teaching based on scripted lesson plans and frequent assessment. Research studies have consistently shown that DI has a positive effect across a range of learners and across various subject areas.

In his comprehensive synthesis, Hattie (2009) summarised the results of four meta-analyses involving a total of 304 studies, arriving at an effect size of 0.59 for DI. He noted that studies showing the effects of DI were similar for regular students (0.99) and special education and lower ability students (0.86), but were higher for reading (0.89) than for mathematics (0.50). A recent meta-analysis located 20 studies carried out since 1996, involving 95 separate comparisons. The average effect size over all comparisons was 0.66. In a similar result to Hattie, the effect sizes were very similar for studies involving general education (0.69) and special education students (0.71). Effect sizes were slightly smaller, on average, for reading (0.56) than for language (0.81) and mathematics (1.03) (Coughlin, 2011) – the reverse of the previous study.

Formative assessment and feedback. Formative assessment and feedback is a combined strategy in which teachers (a) probe for knowledge within lessons, (b) give frequent feedback to learners (sometimes referred to as corrective feedback), and (c) adjust their teaching strategies, where necessary, to improve learners' performances.

A US study used a formative evaluation system with low-achieving learners in a large urban school system. It resulted in significant gains in math achievement (Ysseldyke, 2001). Hattie's (2009) synthesis of feedback referred to 23 separate meta-analyses, incorporating a total of 1,287 separate studies. This yielded a high effect size of 0.73, which he described as *'among the most powerful influences on achievement' (p.173)*.

12.3.2 Social strategies

These strategies emphasise the importance of social contexts – families, peer groups and classrooms – in facilitating learning. Six strategies fall into this category.

Cooperative group teaching. This is based on two main ideas about learning. Firstly, it recognises that when learners cooperate, or collaborate, it has a synergistic effect. In other words, by working together they can often achieve a result that is greater than the sum of their individual efforts or capabilities. Secondly, it recognises that much knowledge is socially constructed; that is, children learn from others in their immediate environments – their families, friendship groups and their classmates.

With a focus on all learners, not just those with special educational needs, Hattie (2009) identified two groups of meta-analyses that involve cooperative learning: (a) those that compare cooperative with individualistic learning (effect size = 0.59), and (b) those that compare cooperative learning with competitive learning (effect size = 0.54). He argued that these results point to the power of peers in the learning process. An example of a specific study is an Australian investigation of the learning outcomes for 22 3rd grade students with learning difficulties who participated in structured and unstructured group activities in a social studies unit. Those in the structured groups were taught small-group and interpersonal behaviours to promote group cooperation. Activities to be completed were broken down into smaller parts with each learner taking responsibility for completing a part as well as sharing resources and information; those in the unstructured groups did not receive this training. The results showed that the structured group provided more directions and help to other group members and obtained significantly higher performances in

comprehension than the unstructured group. This was true both for learners with and without learning difficulties (Gillies & Ashman, 2000).

Peer tutoring and peer influences. Peers play multiple roles in supporting and teaching each other – a 'natural' social relationship that teachers should capitalise on. There is a substantial literature on peer tutoring, i.e., situations in which one learner (the 'tutor') provides a learning experience for another learner (the 'tuteee'), under a teacher's supervision.

In his review of some 14 meta-analyses of peer tutoring, which included a total of 767 separate studies, Hattie (2009) arrived at an effect size of 0.55. He noted several studies that featured learners with special needs. The first of these, which used learners with special needs as tutors of other students with special needs, showed that both groups benefitted (tutors: effect size = 0.53, tutees: effect size 0.58).. The second study found that the magnitude of peer-tutoring effects did not differ according to whether students at risk for reading failure acted as tutors or tutees. In another study, the effects of peer-assisted learning strategies (PALS) on students' reading achievement were evaluated. It was carried out in 22 U.S. elementary and middle schools, with 20 teachers implementing the programme for 15 weeks, while 20 control teachers did not. It was found that all three groups of learners (low achievers with and without disabilities and average achievers) demonstrated greater reading progress in PALS (Fuchs et al., 1997).

Social skills training. This is a set of strategies aimed at helping learners establish and maintain positive interactions with others. Most children quite easily acquire the social skills that are appropriate to their culture, but some do not and must be explicitly taught them. Some have poor social perception and consequently lack social skills; this is particularly true of those with autism and emotional and behavioural disorders (Cook et al., 2008; McGrath, 2005). It is also true of learners with severe disabilities, many of whom have difficulty in forming meaningful or equitable friendships (Wilson, 1999).

In Hattie's (2009) review of strategies, he identified eight meta-analyses, which yielded an average effect size of 0.40, with stronger effects on social skills training enhancing peer relations (0.80 to 0.90) and social outcomes (0.50 to 0.60) and lowest effects for academic achievement (0.10 to 0.20). In a US study, an intervention programme, the Project Achieve Social Skills Program, was implemented in a pre-

kindergarten through sixth grade school over a three-year period. It was found to be effective across the school in improving social and problem solving behaviour, decreasing negative and bullying behaviour and improving students' academic and social functioning. However, about 12% of the students had not responded to the intervention (Killian, et al., 2006).

Collaborative teaching. Collaboration can be defined as a process that enables groups of people with diverse expertise to combine their resources to generate solutions to problems over a period of time (Idol et al., 1994). Educating learners with special educational needs requires collaboration with many people - professionals and parents in particular. There are few areas of education that call upon so much collaboration and teamwork.

In an extensive review of outcome research on consultation carried out between 1985 and 1995, the authors found that nearly 67% of the studies reported some positive findings, while 28% reported neutral findings and only 5% noted negative results (Sheridan & Welch, 1997). These were similar finding to those reported in previous reviews of the research. However, they also recognised that although the impetus for setting up consultation models is widely encouraged, research-based support has been accumulating only slowly.

Parent involvement and support. Parents play important, if not critical, roles in educating and supporting SWSEN. Hattie's (2009) meta-analysis of studies of the impact of home variables on children's educational achievement showed that parental aspirations and expectations had the strongest relationship with their children's achievement (effect size 0.80), while showing interest in their children's school work, assisting with homework and discussing school progress had a moderate effect size (0.38). Another recent meta-analysis of 51 studies investigated the efficacy of different types of parental involvement on the academic achievement of urban pre-kindergarten to 12th grade children. Results indicated a significant relationship (0.3 of a standard deviation) between parental involvement programmes overall and achievement for children across the age-span involved. It was noted that 'parental involvement initiatives that involved parents and their children reading together parents checking their children's homework, and parents and teachers communicating with one another, had a noteworthy relationship with academic outcomes (Jeynes, 2012). See also Chapter Twenty-three of the present review.

Classroom climate. The classroom climate is a multi-component strategy comprising the psychological features of the classroom, as distinct from its physical features. The key principle is to create a psychological environment that facilitates learning, thus drawing attention to three main factors (a) relationships, (b) personal development and (c) system maintenance (Moos, 1979).

In a meta-analysis of the influence of affective teacher-student relationships (TSRs) on students' school engagement and achievement, a group of Dutch scholars examined a total of 99 studies ranging from preschool to high school (Roorda et al., 2011). TSRs include such positive variables as warmth, empathy, and closeness, and negative variables such as conflict. They found that TSRs had a medium to large association with student engagement and a small to medium association with student achievement. These associations were more important for students who were academically at risk, in particular for those from disadvantaged backgrounds or for those with learning difficulties. The authors noted that affective TSRs remained important, or were even more influential, for older students, even into late adolescence. However, they concluded that while affective TSRs are important, there are many other teacher factors, such as instructional quality, that also influence student engagement and achievement. Another recent meta-analysis examined the impact of interventions aimed at enhancing students' social and emotional learning (Durlak, 2011). A total of 213 school-based social and emotional learning (SEL) programmes were included in the study. These programmes had in common the acquisition of competence in recognising and managing emotions, setting and achieving positive goals, appreciating the perspectives of others, establishing and maintaining positive relationships and handling interpersonal situations constructively. Positive effect sizes were obtained across six domains: social and emotional learning (effect size: 0.57), attitudes (0.23), positive social behaviour (0.24), conduct problems (0.22), emotional distress (0.24), and academic performance (0.27). The authors noted, too, that classroom teachers and other school staff were able to effectively conduct the SEL programmes.

12.3.3 Cognitive strategies

Five strategies draw upon cognitive models of learning how we collect, store, interpret, understand, remember and use information. These strategies typically emphasise the role of learners in actively constructing their own understanding. They

are increasingly drawing upon neuroscience in explaining their underlying mechanisms, a field that is sometimes referred to as the 'Mind, Brain and Education' movement, which has the goal of joining biology, cognitive science, development and education in order to create a sound grounding of education in research (Fischer, 2009). See also Chapter Six.

Cognitive strategy instruction. Cognitive strategy instruction (CSI) refers to ways of assisting learners to acquire cognitive skills, or strategies. It does this by helping them to (a) organise information so that its complexity is reduced, and/or (b) integrate information into their existing knowledge (Ashman & Conway, 1997). It includes teaching skills such as visualisation, planning, self-regulation, memorising, analysing, predicting, making associations, using cues, and thinking about thinking (i.e., metacognition).

There is a considerable literature on the effectiveness of various types of CSI on learners with special educational needs. Much of it focuses on those with learning disabilities and on mathematics, reading comprehension and writing skills. Overall, there is strong evidence favouring CSI (Gersten, et al., 2001). In his synthesis of two meta-analyses of the impact of teaching meta-cognitive strategies on learners' achievement, Hattie (2009) found an effect size of 0.69. He noted that such teaching was particularly effective with remedial students. A US review of several studies of CSI concluded that it was effective for improving the mathematical problem-solving performance of middle and secondary school students with learning disabilities (Montague, 1997). The goal of instruction in the studies was to teach the students a comprehensive cognitive and metacognitive strategy for solving mathematical word problems. In the cognitive strategy students were taught to follow these steps: Read, Paraphrase, Visualise, Hypothesise, Estimate, Compute, and Check. In the metacognitive strategy they were taught to Self-instruct, Self-question and Self-monitor.

Self-regulated learning. Self-regulated learning (SRL) aims at helping learners to define goals for themselves, to monitor their own behaviour, and to make decisions and choices of actions that lead to the achievement of their goals (Zimmerman, 2000). Ultimately, SRL is directed and regulated by motivation. This strategy can be used in a variety of settings, across a range of subjects, and with learners with and without special educational needs. Most definitions of SRL refer not only to the regulation of

cognitive processes, but also to the regulation of behaviour and emotions (Rueda et al., 2011).

A recent meta-analysis on self-regulation studies was reported by a group of German scholars (Dignath et al., 2008). They presented the results of 48 intervention comparisons involving 30 articles on enhancing self-regulated learning among primary school learners (those with special educational needs were not separately analysed). They concluded that self-regulated learning training programmes proved to have positive effects on academic achievement. In another recent review of self-regulated learning, carried out by UK scholars (Duckworth et al., 2009), they drew conclusions such as the following: (a) there is a positive overall relationship between self-regulation and academic achievement; (b) individual elements of self-regulation (e.g., attitudes towards learning, attention and persistence) are also related to academic achievement; (c) although the effect size of self-regulation is small compared to that associated with prior attainment, it exists independently of prior attainment; (d) aspects of self-regulation such as attention, persistence, flexibility, motivation and confidence can all be improved as a result of effective teaching; (e) metacognition is a key element and driver of self-regulation.

Memory strategies. Here, consideration must be given to ways of enhancing primary memory, short-term memory, long-term memory and the executive system. Memory straddles both the cognitive approach and the social approach to learning, the first because the learner must construct the relationship between new knowledge and what was previously learned, and the second because others play an influential role in determining what is attended to and how it is interpreted. The principal considerations for developing memory skills include mnemonics, motivation, attention, pacing of lessons, rehearsal, transforming material into mental representations, and chunking. As well, consideration should be given to the relationship between memory and emotions.

Several research studies have shown that students (including those with a range of disabilities) can be trained to use mnemonic strategies independently across a range of different content areas, including science and social studies (Mastropieri & Scruggs, 1989). In an analysis of 19 meta-analyses of various interventions, mnemonic training, with an effect size of 1.62, was rated the highest This effect size can be translated to mean that the average student receiving mnemonic instruction

was better off than 95% of the students not receiving such instruction (Lloyd et al., 1998).

Reciprocal teaching. Reciprocal teaching (RT) involves teaching learners, by means of guided practice, how to improve their reading comprehension, in all subject areas, by predicting, clarifying, questioning, and summarising what is in a text. It takes place in a dialogue between an educator and learners while segments of text are studied, in which the educator models and explains in the early stages and gradually passes more and more responsibility to the learners as they become more competent.

There is substantial evidence that RT is effective in improving learners' reading comprehension. In the main, studies have focused on students with learning disabilities and have been spread across several countries. For example, in an early study by Palincsar & Brown (1984), the originators of RT, this approach was compared with 'typical practices'. This US study involved 24 7th grade learners with reading difficulties. The results showed that the majority of the learners in the reciprocal teaching programme made substantial gains in reading comprehension. A comprehensive review of 16 quantitative RT studies, including six with below-average learners, found a median effect size of 0.88 when experimenter-developed comprehension tests were used (Rosenshine & Meister, 1994). The effect size was somewhat lower (0.32) when standardised tests were used. This analysis also showed that RT was most effective for older and poorer reading students.

Cognitive behavioural therapy (CBT). As its name implies, CBT draws upon both cognitive/ constructivist and behavioural approaches to learning. It is an active process of changing a person's negative thinking patterns, which in turn leads to changes in behaviour and, ultimately, to a reduction or elimination of feelings of anxiety or depression. It is a brief, systematic form of psychotherapy that teaches people to change the way they think about themselves and act.

A meta-analysis of school-based studies was reported in 1999. This study surveyed 23 investigations of the effect of CBT on learners with hyperactivity-impulsivity and aggression (Robinson, et al., 1999). The mean effect size across all the studies was 0.74, with 89% of the studies reporting that those in treatment groups experienced greater gains than those in control groups. In all bar one of the studies, the children were treated in self-contained special classes in regular schools or in regular classes. All of the studies incorporated strategies designed to assist children

increase self-control, mostly by using covert self-statements to regulate their behaviours. An English review found similarly positive results for CBT (Pattison & Harris, 2006). It reported on the research evidence on the outcomes of four approaches to counselling children and young people: CBT, person-centred, psychodynamic and creative therapies. More high quality evidence was found for the effectiveness of CBT than the other approaches. In a breakdown of the studies reviewed, CBT was found to be an effective therapy for the following problem areas: (a) behavioural and conduct disorders, (b) anxiety, (c) school-related issues, (d) self-harming practices, and (e) sexual abuse.

12.3.4 Mixed strategies

Some strategies do not fall readily into the one of the above three approaches. Four in particular are worthy of mention.

Assistive technology. An assistive technology (AT) device is defined in US legislation as 'any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customised, that is used to increase, maintain, or improve functional capabilities of children with disabilities.'

A recent review of the literature on the use of computer assisted instruction with learners with mild and moderate disabilities found that, although mixed, research supported the its use to raise academic achievement, particularly when it is used as a tool for extended practice of previously learned concepts (Fitzgerald & Koury, 1996). A Swedish study investigated the effects of an interactive multimedia computer programme on reading and communication skills of six-year-old learners, 11 with autism and nine with mixed handicaps. The former group increased both their word reading and phonological awareness, but these were not sustained during follow-up. A similar, but weaker pattern was found for the second group. It was concluded that such interventions should be individually based (Heimann et al., 1995).

Augmentative and alternative communication (AAC). Some learners with special educational needs have significant difficulties in communicating with others using speech. Augmentative communication is used to supplement whatever existing methods of communication a learner has, while alternative communication represents an attempt to replace the lost means of communication.

In an analysis of 50 single subject experimental studies carried out across a wide age range, the effectiveness of AAC was examined. The results showed that

interventions were effective in terms of behaviour change and generalisation, although to a lesser extent with maintenance over time (Schlosser & Lee, 2000). A US study investigated the effects of a classroom-based augmentative communication intervention with non-verbal and behaviourally and cognitively challenged adolescents. Picture communication boards, as well as natural language, were used and resulted in increases in communication and positive behaviours and participation in a more complex curriculum (Cafiero, 2001).

Phonological awareness is an oral language skill that involves the ability to notice, reflect upon and manipulate (move, combine, and delete) the individual sounds in words. (Torgesen and Mathes, 1998) It involves two processes: (a) the awareness that speech is made up of sounds, and (b) the ability to break down these sounds and manipulate them.

In a meta-analysis carried out in the US by the influential National Reading Panel (2000), an effect size of 0.53 was obtained for the impact of phonological awareness instruction on reading. An Australian study evaluated the effects of phonological processing skills training for learners aged nine-14 years with persistent reading difficulties. The results showed that improvement in the learners' phonological processing skills led to considerable improvement in their reading accuracy and reading comprehension. Extending the length of the training time significantly improved the transfer of skills to the reading process, especially for those with severe phonological processing skill difficulties (Gillon & Dodd, 1997).

Quality of the indoor physical environment. This strategy is aimed at ensuring that all the elements of the indoor physical environment that may affect students' ability to learn are optimal. It involves attending to such matters as the design and arrangement of furniture, acoustics, lighting, temperature, air quality, and safety.

A study conducted in New York City showed that students in overcrowded schools scored significantly lower in both mathematics and reading than similar students in less crowded conditions (Rivera-Batiz & Marti, 1995). A Swedish study investigated the impact of air quality on absenteeism in two day-care centres. The introduction of electrostatic air cleaning technology reduced the level of absenteeism from 8.31% to 3.75% (Rosen & Richardsom 1999). A New Zealand study examined the effects of sound-field amplification (SFA) for four learners with Down syndrome aged six to seven years. The results showed that the learners perceived significantly

more speech when a SFA system that amplified the investigator's voice by 10 decibels was used (Bennetts & Flynn, 2002). See also Chapter Fifteen of the present review.

12.4   A Scale for Evaluating Teachers' Use of Evidence-based Strategies

In a paper presented at a UNESCO conference, Mitchell (2009) outlined a scale for evaluating teachers' use of the strategies outlined above. The scale is designed to be used in carrying out a needs analysis for teachers' professional development. This could involve the following three steps:

Step One. Teachers are asked to complete a questionnaire, rating their use of the 22 key strategies. The questions are intended to provide a broad picture only and provide a basis for a more detailed analysis to be conducted in the next step.

Step Two. This step would normally involve an independent evaluator who would build on a teacher's questionnaire responses and would use a combination of an in-depth interview, classroom observations and document inspection to evaluate the teacher's use of the 22 strategies. Mitchell noted that it might be possible for some teachers to carry out a self-evaluation of their use of the strategies, thus obviating Step One.

Step Three. On the basis of information obtained in the previous two steps, a professional development programme is designed.

EXCERPT FROM A SCALE FOR EVALUATING STRATEGIES FOR ENHANCING LEARNING (DRAFT)

NB: This Scale has yet to be peer-reviewed and tested for reliability. It should not be used until these steps have been taken and a revised form provided. Readers of this draft are invited to provide comments.

Criteria	Indicators	Evaluation
1. Employs co-operative group teaching The teacher regularly uses co-operative group teaching in which all learners work together in small learning groups of 6 to 8, helping each other to carry out individual and group tasks. Groups are usually mixed ability, but are sometimes comprised of learners with similar ability. The teacher teaches group process skills and carefully supervises group interactions. **Reference** Mitchell, 2014b, pp.35-46.	1. In most lessons the teacher uses co-operative group activities. 2. The teacher uses a combination of (a) mutual assistance groups in which learners are encouraged to help individuals to carry out tasks, and (b) 'jig-saw' type groups in which all learners contribute to a group task. 3. Mostly, groups are comprised of learners with mixed abilities. 4. The teacher teaches group process skills and carefully supervises group activities.	A. All the indicators are regularly met. B. The teacher occasionally uses both forms of co-operative group activities with ability groups and mixed ability groups. C. The teacher occasionally uses mutual assistance groups. D. None of the indicators are met.
2. Employs peer tutoring The teacher regularly sets up peer tutoring in which one learner (a 'tutor') provides learning experiences for another learner (a 'tutee'). Such tutoring is mainly used to promote fluency through practising or reviewing skills or knowledge. The tutors are taught to follow a structured lesson format. Each dyad works for no more than 10 minutes at a time for 8-10 sessions. **Reference** Mitchell, 2014b, pp.47-57.	1. In most lessons the teacher uses peer tutoring. 2. The peer tutoring is used for practice and review of previously taught material. 3. Tutors are taught to use a structured lesson format. 4. Care is taken in matching tutors with tutees.	A. All the indicators are regularly met. B. The teacher regularly uses peer tutoring, but not all the other indicators are met. C. The teacher occasionally uses peer tutoring. D. None of the indicators are met.

12.5   A Final Word

The overarching theme of this chapter is that teaching must become more based on empirical evidence of what has been proven to be effective strategies for improving students' outcomes. A secondary theme is that, in order to bridge the research-practice gap, it is necessary that teacher education - both pre-service and in-service must be upgraded to deliver programmes based on evidence (see also Chapter Eighteen). Only by doing this will teaching be able to lay claim to being a true profession.

12.6   Summary

1. *Educators are increasingly expected to be responsible not only for helping students to achieve the best possible outcomes, but also for using the most scientifically valid methods to achieve them.*

2. *Evidence-based teaching strategies may be defined as 'clearly specified teaching strategies that have been shown in controlled research to be effective in bringing about desired outcomes in a delineated population of learners'.*

3. *All students, including SWSEN, benefit from a common set of strategies, even if they have to be adapted to take account of varying cognitive, emotional and social capabilities. What is required is the systematic, explicit and intensive application of a wide range of effective teaching strategies.*

4. *To constitute evidence, research studies should meet criteria such as the following: (a) treatment fidelity, (b) reliable and valid measurement of behavioural outcomes, (c) adequate control of variables, (d) freedom from contamination, (e) adequate follow-up, (f) replicated in more than a single study, and (g) cost effectiveness.*

5. *Strategies that have a strong evidential base for use with SWSEN (and other students) may be grouped under four headings, according to their predominant underlying assumptions about how learning takes place: social, behavioural, constructivist and mixed.*

6. *A scale for evaluating teachers' use of evidence-based teaching strategies is described.*

7. *In order to bridge the research-practice gap, it is necessary that teacher education - both pre-service and in-service must be upgraded to deliver programmes based on evidence.*

CHAPTER THIRTEEN

INCLUSIVE EDUCATION [1]

In almost every country, inclusive education has emerged as one of the most the dominant issues in the education of SWSEN. In the past 40 or so years the field of special needs education has moved from a segregation paradigm through integration to a point where inclusion is central to contemporary discourse. Even so, in many countries the concept of inclusion is not unproblematic, both conceptually and practically (Hegarty, 2001). This chapter presents material on seven themes relating to inclusive education: the concept, its origins, international perspectives, approaches to its implementation, evaluating inclusive education inputs, related research evidence, and critiques.

From the outset, it must be said that inclusive education is a complex, if not a problematic concept. Despite the internationalisation of the philosophy of inclusive education (UNESCO, 1994, 2008), for a range of historical, cultural, social and financial reasons its implementation has been uneven across the world. It has been a particularly problematic concept in developing countries, where resources are limited and fewer than 2% of children with disabilities receive any form of education, let alone in inclusive settings.

Inclusive education affects not just the conceptualisation of special educational needs and the nature of education provided for SWSEN, but it calls into question the broader aims of education, the purposes of schools, the nature of the curriculum, approaches to assessment, and schools' accommodation to diversity. Hence, some of the principles of inclusive education are traversed elsewhere in this review, in particular in the introduction (Chapter One) and the chapters on the educational context (Chapter Eight), curriculum (Chapter Ten), assessment (Chapter Eleven), pedagogy (Chapter Twelve), teacher education (Chapter Eighteen), and universal design for learning (Chapter Twenty-four).

13.1   The Concept of Inclusive Education

A succinct definition of inclusive education is provided by Lipsky & Gartner (1996, 1999), who described it as students with disabilities having full membership in

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[1] This chapter is mainly drawn from Mitchell 2004b, 2005, and 2014b.

age-appropriate classes in their neighbourhood schools, with appropriate supplementary aids and support services. To Antia et al. (2002), inclusion denotes a student with a disability unconditionally belonging to and having full membership of a regular classroom in a regular school and its community. They contrasted this with 'integration', or 'mainstreaming', both of which imply that the student with a disability has the status of a visitor, with only conditional access to a regular classroom, but primary membership of a special class or resource room.

In their review of 28 European countries, Meijer et al. (2003) described three different approaches to including pupils with special educational needs: one-track (including almost all pupils in the mainstream), multi-track (a variety of services between mainstream and special needs education), and two-track (two distinct educational systems). In this chapter, the main focus is upon the first of these – the one-track approach.

In recent years, the concept of inclusive education has been broadened to encompass not only students with disabilities, but also all students who may be disadvantaged. Earlier, Skrtic et al. (1996) had argued that inclusive education goes far beyond physical placement of students with disabilities in general classrooms, but should involve schools meeting the needs of all their students within common, but fluid, environments and activities. This broadened conceptualisation of inclusive education was recently articulated in the meeting at the forty-eighth session of the UNESCO International Conference on Education, held in Geneva in November 2008, where it was acknowledged that 'inclusive education is an ongoing process aimed at offering quality education for all while respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination' (UNESCO, 2009, p.126).

13.2 The Origins of Inclusive Education

Advocacy for inclusive education revolves around three main arguments. Firstly, several writers claim that inclusive education is a basic human right. For example, Christensen (1996) argued that exclusion or segregation of students with special needs is a violation of their human rights and represents an unfair distribution of educational resources. Similarly, Lipsky & Gartner (1996, 1999) asserted that inclusive education is a fundamental right, derived from the principle of equity, which, if recognised, would contribute significantly to a democratic society. This is also

emphasised in UNESCO's *Salamanca Statement* (1994) and by Slee (2001), the latter considering that inclusive education is about the cultural politics of protecting the rights of citizenship for all students. Writing from a British perspective, and as a person with a disability, Oliver (1996) argued that the education system has failed disabled students by not equipping them to exercise their rights and responsibilities as citizens, while the special education system has functioned to exclude them from both the education process and wider social life. He thus saw inclusion as a political as well as an educational process.

Secondly, as Lipsky & Gartner (1996, 1999) pointed out, in designing educational programmes for students with disabilities, the focus must shift from the individual's impairments to the social context, a key feature of which should be a unitary education system dedicated to providing quality education for all students (cf., Meijer et al.'s (2003) one-track approach mentioned above). A similar point is advanced by English writer, Skidmore (2002), who found that teachers have two contrasting 'pedagogical discourses' – the discourse of deviance and the discourse of inclusion. These differ along a number of dimensions, such as teachers' views on the educability of students, their explanations of student failure, and their curriculum models. He argued that the discourse of inclusion provides an alternative vision of the relationship between education and society that runs counter to the processes of segregation and differentiation that have dominated the development of mass schooling. The latter point was also expressed by Slee (2001), who claimed that the more schools have been called upon to include the masses, the more they have developed the technologies of stratification and exclusion. Slee saw a danger, too, in inclusive education deteriorating into assimilation or absorption.

A third argument asserts that since there is no clear demarcation between the characteristics of students with and without disabilities, and there is no support for the contention that specific categories of students learn differently, separate provisions for such students cannot be justified (Lipsky & Gartner, 1996, 1999).

13.3 International Perspectives on Inclusive Education

In a recent book outlining international perspectives on inclusive education, Mitchell (2005) and his authors explored the notion that the characterisation, purpose and form of inclusive education reflect the relationships among the social, political, economic, cultural and historical contexts that are present at any one time in a

particular country and/or local authority. Among the 16 propositions to emerge from this overview, seven are particularly pertinent to the present review:

1. Inclusive education extends beyond special needs arising from disabilities and includes consideration of other sources of disadvantage and marginalisation, such as gender, poverty, language, ethnicity, and geographic isolation. The complex inter-relationships that exist among these factors and their interactions with disability must also be a focus of attention.

2. Inclusion goes beyond education and should involve consideration of employment, recreation, health and living conditions. It should therefore involve transformations across all government and other agencies at all levels of society.

3. While many countries seem committed to inclusive education in their rhetoric, and even in their legislation and policies, practices often fall short. Reasons for the policy-practice gap in inclusive education are manifold and include barriers arising from societal values and beliefs; economic factors; a lack of measures to ensure compliance with policies; the dispersion of responsibility for education; conservative traditions among teachers, teacher educators and educational researchers; parental resistance; lack of skills among teachers; rigid curricula and examination systems; fragile democratic institutions; inadequate educational infrastructures, particularly in rural and remote areas; large class sizes; resistance from the special education sector (especially special schools); and a top-down introduction of inclusive education without adequate preparation of schools and communities.

4. Inclusive education exists in historical contexts in which vestiges of older beliefs co-exist with newer beliefs.

5. Inclusive education is embedded in a series of contexts, extending from the broad society, through the local community, the family, the school and to the classroom.

6. Because cultural values and beliefs, levels of economic wealth, and histories mediate the concept of inclusive education, it takes on different meanings in different countries, and even within countries. The form taken by inclusive education in any particular country is influenced by the nature of the settlements reached at any one time between (a) traditional values such as

social cohesion and group identity, collectivism, images of wholeness, fatalism, hierarchical ordering of society, and (b) modernisation values such as universal welfare, equity and equality, democracy, human rights, social justice, individualism, and parent choice.

7. Economic considerations play a significant role in determining approaches to inclusive education. These include (a) a recognition that it would not be financially realistic to provide special schools throughout a country, (b) the adoption of a human capital policy of developing all individuals primarily as a means of enhancing the economy, and (c) an attitude that persons with disabilities are economic liabilities and are therefore of low priority.

The United Nations and its agency, UNESCO, have played a significant role in promoting inclusive education, as noted in Chapter One, section 1.4, in the present review. The most significant event took place in June 1994 when representatives of 92 governments and 25 international organisations met in Salamanca, Spain (UNESCO, 1994). The resulting agreement, known as the *Salamanca Statement,* demonstrated an international commitment to inclusive education. It included these agreements:

- those with special educational needs must have access to regular schools which should accommodate them within a child-centred pedagogy capable of meeting these needs, and

- regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving an education for all; moreover, they provide an effective education for the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system.

The *Statement* called upon all governments to 'adopt as a matter of law or policy the principle of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing otherwise'.

More recently, in December 2006, the 61st session of the United Nations General Assembly confirmed a *Convention on the Rights of Disabled Persons*, which included a significant commitment to inclusive education. Article 24 is the most relevant to inclusive education. It stated, *inter alia*, the following:

1. States Parties recognise the right of persons with disabilities to education. With a view to realizing this right without discrimination and on the basis of equal opportunity, States Parties shall ensure an inclusive education system at all levels, and life-long learning, directed to:

   a. The full development of the human potential and sense of dignity and self worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity;

   b. The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential;

   c. Enabling persons with disabilities to participate effectively in a free society.

2. In realising this right, States Parties shall ensure that:

   d. Persons with disabilities are not excluded from the general education system on the basis of disability, and that children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability;

   e. Persons with disabilities can access an inclusive, quality, free primary education and secondary education on an equal basis with others in the communities in which they live;

   f. Reasonable accommodation of the individual's requirements is provided;

   g. Persons with disabilities receive the support required, within the general education system, to facilitate their effective education;

   h. Effective individualised support measures are provided in environments that maximise academic and social development, consistent with the goal of full inclusion.

As of April 2015, a total of 159 countries had signed the *Convention* and 153 had ratified it (including Australia and New Zealand, but, notably, not the USA). As well, 92 countries had agreed to the Optional Protocol (including Australia, but not New Zealand). Under the Convention, all States parties are obliged to submit regular reports to the Committee on the Rights of Persons with Disabilities, a body of independent experts which monitors implementation of the Convention by the States

Parties on how the rights are being implemented. States must report initially within two years of accepting the Convention and thereafter every four years. The Committee examines each report and makes such suggestions and general recommendations on the report as it may consider appropriate and forwards these to the State Party concerned. The Optional Protocol gives the Committee competence to examine individual complaints with regard to alleged violations of the Convention by States parties.

It should be noted, however, that neither the *Salamanca Statement* nor the *Convention* explicitly states that *all* SWSEN should be educated in fully inclusive settings at all level*s* of the education system. Nor do they explicitly exclude such an interpretation. In other words, there is a degree of ambiguity regarding the intentions of both documents with regard to the meaning of inclusion.

With the impetus provided by the UN and UNESCO, and other influences such as those outlined in Chapter One, it is not surprising that virtually all countries have policies on inclusive education, or are in the process of developing them. To attempt to summarise them would be a major task. It is perhaps sufficient to mention some countries' approaches in order to illustrate the developments that are occurring,

England. In this country, the 2004 document *Removing barriers to achievement: The Government's strategy for SEN* (Department for Education and Skills, 2004) made a clear commitment to inclusive education by embedding inclusive practice in every school and early years setting. It cited the 1997 Green Paper, *Excellence For All Children*, as signaling the government's commitment to the principle of inclusion and the need to rethink the role of special schools within that context. It also referred to The SEN and Disability Act 2001 as delivering 'a stronger right to mainstream education, making it clear that where parents want a mainstream place for their child, everything possible should be done to provide it' (p.25). A small, but significant, caveat to the principle of inclusion, however, can be found in the 2001 *Code of Practice* (Department for Education and Skills, 2001), which stated that 'A parents' wish to have their child with a statement educated in the mainstream should only be refused in the small minority of cases where the child's inclusion would be incompatible with the efficient education of other children' (p.14). A further indication of England's commitment to inclusive education is the government's decision to place the Index for Inclusion (Booth & Ainscow, 2002) in every school.

Australia. Several Australian states have made a commitment to inclusive education. In Western Australia, for example, the aim of the Building Inclusive Schools (BIS) strategy since it commenced in 2002 has been to raise awareness across all levels of the education system of changing societal expectations in relation to the education of students with disabilities and the legal imperatives that now impact on schools. It is described as 'a professional learning program that promotes and supports the cultural shift of inclusive educational practices in all public schools'. (For details of the Building Inclusive Schools strategy, see the following website: http://www.det.wa.edu.au/inclusiveeducation/detcms/navigation/building-inclusive-learning-environments/building-inclusive-schools/).

Similarly, the *Inclusive Education Statement 2005* in Queensland aimed to (a) foster a learning community that questions disadvantage and challenges social injustice, (b) maximise the educational and social outcomes of all students through the identification and reduction of barriers to learning, especially for those who are vulnerable to marginalisation and exclusion, and (c) ensure all students understand and value diversity so that they have the knowledge and skills for positive participation in a just, equitable and democratic global society (for details see the website: http:/education.qld.gov.au/strategic/eppr/curriculum/crppr009/)

New Zealand. New Zealand's commitment to inclusive education is reflected in the Education Act 1989 which states, inter alia, that: 'People who have special educational needs (whether because of disability or otherwise) have the same rights to enrol and receive education at state schools as people who do not' (Part 8 (1)). Similarly, the *Human Rights Act 1993*, Clause 57, states that:

It shall be unlawful for an educational establishment, or the authority responsible for the control of an educational establishment, or any person concerned in the management of an educational establishment or in teaching at an educational establishment,—

a. to refuse or fail to admit a person as a pupil or student; or
b. to admit a person as a pupil or a student on less favourable terms and conditions than would otherwise be made available; or
c. to deny or restrict access to any benefits or services provided by the establishment; or

d. to exclude a person as a pupil or a student or subject him or her to any other detriment,—

by reason of any of the prohibited grounds of discrimination [which includes disability].

As noted in Chapter Ten, the *New Zealand Curriculum* has inclusion as one of its eight guiding principles, with a focus on removing barriers to presence, participation, and achievement. It states that ʻThe curriculum is non-sexist, non-racist, and non-discriminatory; it ensures that [all] students' identities, languages, abilities, and talents are recognised and affirmed and that their learning needs are addressed (p.9).

So, what progress has New Zealand made in implementing inclusive education?

According to 2014 data on school enrolments, of the students making up the 1% categorised as having high needs, only 33.5% of them were being educated in special schools. The remaining 66.5% were placed in regular schools in special classes or regular classes (no statistics were available to show this distribution).

In 2010, the Education Review Office (ERO) (2010) evaluated a sample of 199 primary and 30 secondary schools in 2010, to ascertain the extent to which they were inclusive of the 3% of 'students with high needs'. These are 'students with 'significant physical, sensory, neurological, psychiatric, behavioural or intellectual impairment' (p.3), who receive funding and support through a variety of mechanisms, such as the Ongoing and Reviewable Resourcing Schemes. (See section 13.5, below for a description of the instrument employed by ERO). Approximately 50% of the surveyed schools demonstrated inclusive practices, another 30% had 'pockets of inclusion' and the remaining 20% had few inclusive practices. Subsequently, the Government developed a policy, *Success for All - Every School, Every Child*, to promote the achievement, participation, and presence of children with special education needs in every mainstream school (Ministry of Education, 2010). In a 2014 follow-up in 152 schools, ERO found that 75% were mostly inclusive. ERO found that the most inclusive schools operated under three key principles:

- having ethical standards and leadership that built the culture of an inclusive school;

- having well-organised systems, effective teamwork and constructive relationships that identified and supported the inclusion of students with high needs; and

- using innovative and flexible practices that managed the complex and unique challenges related to including students with high needs. (p.1)

- School staff identified several benefits to inclusive education, including:

- the positive influence of students with high needs on the culture of the school;

- the benefit to teachers in having to adapt the curriculum to meet the diverse needs of students;

- teachers developing networks with outside agencies and families;

- other students having leadership responsibilities for some students with high needs.(p.27)

Among ERO's recommendations was that the Ministry of Education should 'build school-wide capability to build effective teaching for all students by extending effective evidence-based whole-of-school professional development programmes' (p.2).

Apropos of the chapter on funding in the present review, it is noteworthy that ERO found that 'The quality of leadership, and the extent to which schools could adopt a specialised pedagogy for students with high needs, were more important than funding.' (p.32)

Europe. In 2009, the European Agency for Special Needs Education published a set of 'Indicators for Inclusive Education', with the aim of developing 'a methodology that would lead to a set of indicators suitable for national level monitoring, but that could also be applied at the European level'. The indicators were expected to have 'a clear focus on the policy conditions that may support or hinder the development of inclusive education within schools'. (see http://www.european-agency.org/agency-projects/indicators-for-inclusive-education).

In 2014, the European Agency for Special Needs and Inclusive Education (formerly the European Agency for Development in Special Needs Education) highlighted five key messages regarding inclusive education, with proposals for actions:

- *As early as possible*: all children have the right to receive the required support as soon as possible and whenever it is needed. This implies co-ordination and

co-operation among services, led by one of the services concerned. The stakeholders involved need to build real communication among themselves, being able to understand and provide information to each other. Parents are key stakeholders.

- *Inclusive education benefits all*: inclusive education aims to provide quality education for all learners. In order to achieve an inclusive school, support is needed from the entire community: from decision-makers to end-users (learners and their families). Collaboration is required at all levels and all stakeholders need a vision of long-term outcomes – the type of young people the school and the community will 'produce'. Changes in terminology, attitudes and values, reflecting the added value of diversity and equal participation, are needed.

- *Highly qualified professionals:* in order for teachers and other education professionals to be prepared for inclusion, changes are needed in all training aspects – training programmes, daily practices, recruitment, finances, etc. The next generation of teachers and education professionals must be prepared to be teachers/trainers for all learners; they need to be trained not just in terms of competences but also of ethical values.

- *Support systems and funding mechanisms:* the best indicators for financing are not to be found in finances, but in measuring efficiency and achievement. It is essential to consider outcomes and relate them to the efforts invested to achieve them. This involves monitoring and measuring the systems' efficiency in order to focus financial means towards successful approaches. Incentive structures should ensure that more financial support is available if learners are placed in inclusive settings, and that greater emphasis is placed on outcomes (not just academic ones).

- *Reliable data:* meaningful, quality data collection requires a systemic approach encompassing learner, placement, teacher and resourcing issues. Data related to learner placement is a useful and necessary starting point, but it needs to be supplemented with clear data on system outcomes and effects. Data on learner outcomes – the impact of inclusive education – is much harder to collect and is often lacking in countries' data collection.

Earlier, the Council of the European Union (2010 had stressed the importance of ensuring that learners with disabilities not only participated fully in the learning process in mainstream schools, but that they were able to achieve.

USA. The United States has a voluminous literature and a range of policies relating to inclusive education, although the term is not employed in official documents. A recent reflection by Sailor (2009) sums up the present status of inclusive education:

> Without question, one of the thorniest policy questions to confront American education in the second half of the twentieth century and continuing today is the issue of placement for students served under the Individuals with Disabilities Education Act (IDEA). Federal policy consistently has used the least restrictive environment (LRE) language in statutory and regulatory policy to enhance the integration of students with disabilities and greater access to the curriculum of general education. In addition, families assisted by advocacy organizations have litigated successfully to achieve these ends for their children with disabilities. Some of these cases have produced favourable interpretations at the level of the Supreme Court. Finally, university researchers associated with special education departments around the country built a strong case for more positive educational and social outcomes for children when they are educated alongside their nondisabled peers. Despite this three-pronged effort, educational segregation of students with disabilities continues on a large scale today (p.467).

Sailor's final point is reflected in Table 17.3 in Chapter Seventeen, which shows that in 1995, only 26.2% of students with disabilities were receiving their education in regular classroom settings.

13.4   Approaches to Implementing Inclusive Education[1]

As Skrtic et al. (1996) pointed out, inclusive education goes far beyond the physical placement of children with disabilities in general classrooms. Rather, as many writers have emphasised, it requires nothing less than transforming regular education by promoting school/classroom cultures, structures and practices that accommodate to diversity (Christensen, 1996; Department of Education, 2001; Dyson et al., 2003; Shaffner & Buswell, 1996). In implementing inclusive education, attention should be paid to three levels: the broad society and education system, the school and the classroom.

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[1] The impact of school reforms on inclusive education is of particular significance and is outlined in Chapter Eight of this review.

Societal and education system level. At this level, factors such as the following have been identified as playing important roles: (a) the policy context of the wider community (Dyson, et al. 2003), (b) collaboration between government agencies and between them and non-government organisations, and (c) collaboration among educators, parents, peers, other school personnel, and community agency personnel (Department of Education, 2002; King-Sears, 1997).

To bring about inclusion, according to Oliver (1996), changes must take place at all levels of society. These include differences becoming positively valued, education systems becoming morally committed to the integration of all children into a single education system, schools becoming welcoming environments, teachers becoming committed to working with all children, curricula becoming freed of 'disablist' content, and disabled people being given skills to enter the labour market.

School level. At this level, the key question is what evidence is there that mainstream schools can act in ways that enable them to respond to student diversity to facilitate participation by all students in the cultures, curricula and communities of those schools? After extensively reviewing the literature on this topic, Dyson et al. (2003) were able to find only six studies that provided trustworthy evidence relevant to this question. In determining the extent to which schools facilitate (or inhibit) inclusion, two school-level themes ran through these studies: the importance of school culture (e.g., the values and attitudes held by staff) and leadership and decision-making. School leadership was also emphasised by Ainscow (1995), Schaffner & Buswell (1996) and Stanovich & Jordan (1998). The latter found that the strongest predictor of effective teaching behaviour in inclusive education settings in Canada was the subjective school norm as operationalised by principals' attitudes towards heterogeneous classrooms[1] . Developing school support networks has also been identified as an important facilitator of inclusive education (Ainscow, 1995; Shaffner & Buswell, 1996), as has encouraging a strong sense of community with professionals and paraprofessionals working collaboratively with parents (Skrtic et al., 1996).

Classroom level. Of course, the success or otherwise of inclusive education critically depends on what takes place minute-by-minute in regular classrooms. Inclusive education does not mean the coexistence of one programme for a student

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[1] See Chapter Eight, section 8.6, for further comments on leadership.

with special educational needs and another for the other students. Rather, it implies changing the programme and teaching approaches for all students in a class. In this sense, inclusive education is something of an educational Trojan Horse, since it involves not only accommodating regular classroom programmes and teaching strategies to the needs of SWSEN, but also making adjustments to meet the diverse needs of other students in the class. In general terms, this means teachers adopting student-centred pedagogy, as distinct from curriculum-centred pedagogy (McDonnell, 1998; UNESCO, 1994). [1]

Inclusive education also requires close collaboration between regular class teachers and a range of other people, including specialist teachers, teaching assistants, therapists, and parents. Features of consultation models that have been advocated include (a) the regular classroom teacher having primary responsibility for students' overall programmes, (b) equal professional status of the regular teacher and the specialist teacher, (c) the involvement of parents in decision-making and planning (Antia et al., 2002)[2], (d) teaching assistants working in partnership with teachers to provide supplementary, but not the sole, input to SWSEN, and (e) most additional support being provided *in situ*, rather than through withdrawal (Davis & Hopwood, 2002).

13.5   Evaluating Inclusive Education Inputs

Elsewhere, the writer has developed the theme that inclusive education is a multi-faceted concept which involves giving consideration to vision, placement, curriculum, assessment, teaching, acceptance, access, support, resources, and leadership, as portrayed in Figure 13.1 (Mitchell, 2015b). For each of these ten inputs, a criteria and indicators are outlined. These will be briefly summarised below.

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[1] See Chapters Ten, Eleven and Twelve for more detailed ideas on classroom-level adaptations.

[2] See also Chapter Twenty-two.

Figure 13.1. Model of inclusive education
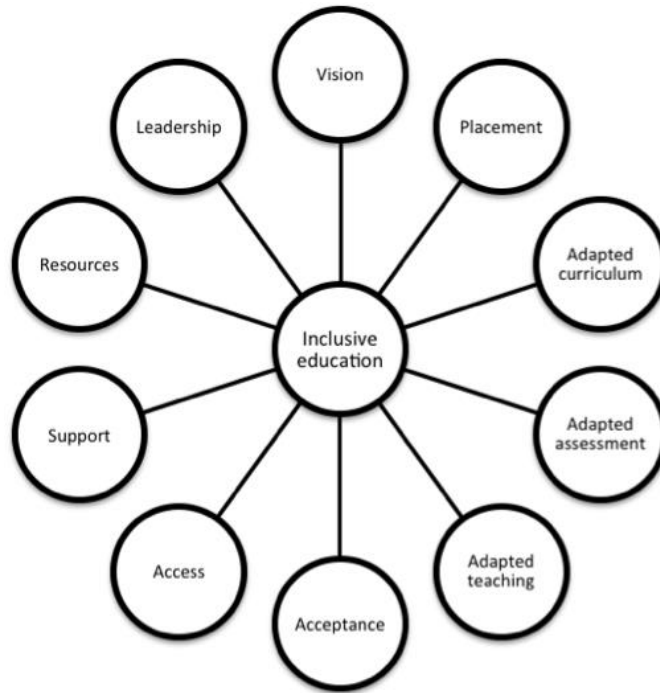
*1. **<u>Vision</u>.*** Inclusive education depends on educators at all levels of the system being committed to its underlying philosophy and being willing to implement it. This means that education systems and schools should articulate an inclusive culture in which 'there is some degree of consensus … around values of respect for difference and a commitment to offering all pupils access to learning opportunities' (Ainscow and Miles, 2008, p.27).

Criterion

Educators at all levels of the system are committed to the underlying philosophy of inclusive education and express a vision for inclusive education in legislation, regulations and policy documents at all levels of the education system.

Indicators

1. The principal/head teacher of the school consistently expresses a commitment to inclusive education.

2. Other senior members of the school leadership are committed to inclusive education.

3. The school's board/governing body is committed to inclusive education.

4. The national/ regional/ local bodies responsible for education are committed to inclusive education.

2. Placement. Most scholars of inclusive education either explicitly or implicitly state that inclusion refers to the placement of all students in regular schools and classrooms, regardless of their level of ability (Luciak and Biewer, 2011).

Criterion

All learners with special education needs are educated in age-appropriate classes in their neighbourhood schools, regardless of their ability.

Indicators

1. All learners with special educational needs attend their neighbourhood school.

2. They are placed in age-appropriate classes.

3. They are withdrawn for additional assistance no more frequently than other learners in the class.

3. Adapted Curriculum. Elsewhere, the writer has argued that making appropriate adaptations or modifications to the curriculum is central to inclusive education (Mitchell, 2014b). Such a curriculum should be a single curriculum that is, as far as possible, accessible to all learners, including those with special educational needs. (Conversely, special educational needs are created when a curriculum is not accessible to all learners.) □s well□□it should include activities that are age-appropriate, but are pitched at a developmentally appropriate level. Since an inclusive classroom is likely to contain students who are functioning at two or three levels of the curriculum, this means that multi-level teaching will have to be employed; or, at a minimum, adaptations will have to be made to take account of the student diversity. (See also Chapter Ten of this review.)

Criterion

The standard curriculum is adapted or modified so that it suits the abilities and interests of all learners. In the case of learners with special educational needs, this means the curriculum content is differentiated so as to be age-appropriate, but pitched at a developmentally appropriate level.

Indicators

1. The curriculum is broadly similar for all learners (i.e., there is not a separate curriculum for learners with special needs).

2. The curriculum is adapted to take account of the abilities and interests of different groups of learners.

3. The principles of Universal Design are employed in the development of curricula.(See also Chapter Twenty-four of this review.)

4. Adapted Assessment. Just as learners with special educational needs are expected to participate and progress in the general curriculum, albeit with appropriate modifications and adaptations, so, too, are they increasingly being expected to participate in a country's national or state assessment regimes. (See also Chapter Eleven of this review.)

Criterion

The content of assessment reflects any adaptations to the curriculum. As well, the means of assessment is adapted to take account of the abilities of all learners. Assessment of learners with special educational needs results in individual educational plans.

Indicators

1. The content of assessment tasks reflects any adaptations made to the curriculum.

2. Assessment tasks take account of the abilities of all learners. For example, a blind learner is assessed via Braille or orally, a deaf learner via sign language, etc..

3. Learners with special educational needs have individual educational plans, which form the basis of their assessment.

5. Adapted Teaching. Educators are increasingly expected to be responsible not only for helping students to achieve the best possible outcomes, but also for using the most scientifically valid methods to achieve them. (See also Chapter Twelveof this review.)

Criterion

As appropriate to the composition of classes and the needs of individual learners, the teaching strategies described by Mitchell (2014) are adopted.

Indicators

1. A substantial number of the classroom focused teaching strategies outlined by Mitchell (2014b) are utilised, where appropriate.
2. Teachers utilise data on learner outcomes to design and evaluate their teaching strategies.

6. Acceptance. The education system and the school recognise the right of learners with special educational needs to be educated in general education classrooms and to receive equitable resourcing. Acceptance is not only a matter of recognising the rights of such learners, but also, ideally, that teachers and fellow students accept human diversity at a philosophical level and that they accept individuals with special educational needs socially and emotionally.

Criterion

The education system and the school recognise the right of learners with special educational needs to be educated in general education classrooms, to receive equitable resourcing and to be accepted socially and emotionally.

Indicators

1. The school board/governing body recognise the rights of learners with special educational needs to inclusive education.
2. The national/ regional/ local bodies responsible for education recognise the rights of learners with special educational needs to inclusive education.
3. The principal/head teacher and other staff members recognise the rights of learners with special educational needs to inclusive education.
4. The school accepts individual learners with special educational needs socially and emotionally.

7. Access. Access is a very broad concept which includes providing adequate physical access to and within classrooms and ensuring that all the elements of the indoor physical environment that may affect students' ability to learn are optimal.

Criterion

Adequate physical access to and within classrooms is provided, with such features as ramps and lifts, adapted toilets, doorways that are sufficiently wide to take wheelchairs, and adequate space for wheelchairs to be manoeuvred in classrooms. As well, the design and arrangement of furniture, acoustics, lighting, temperature, and ventilation take account of individual learners' needs.

Indicators

1. The school has adequate physical access features to accommodate people with physical disabilities and visual impairments, e.g., ramps, adapted toilets, adapted playground equipment, and accessible footpaths/sidewalks.

2. Interior design includes doorways sufficiently wide to accommodate wheelchairs and desks/tables that can be adjusted to suit the needs of learners with physical disabilities.

3. Classrooms have appropriate lighting, acoustics, temperature and air quality.

8. Support. Educating learners with special educational needs requires collaboration among many people – several professionals and parents in particular. Indeed, there are few areas of education that call upon so much collaboration and teamwork. This is particularly true in inclusive education where, ideally, general classroom teachers may work with various combinations of specialist teachers; paraprofessionals; special needs advisers; educational psychologists; therapists and other specialists; community agencies such as welfare services, police and advocacy groups; paraprofessionals; technology consultants; and, of course, parents.

Criterion

A team of professionals provides adequate and appropriate support for teachers. Ideally, this team consists of (a) a general educator, receiving advice and guidance from (b) a specialist adviser, access to (c) appropriate therapists and other professionals (e.g., psychologists, hearing advisers, social workers, physiotherapists, speech and language therapists, and occupational therapists), and (d) assistant teachers/ paraprofessionals, learning support assistants, or teacher aides. The composition of such teams varies according to the needs of the particular learners. Teams should receive appropriate training to carry out their responsibilities. The school should adopt a response to intervention model.

Indicators

1. Teachers have access to specialist adviser(s), appropriate therapists and other professionals (e.g., psychologists, hearing advisers, social workers, physiotherapists, speech and language therapists, and occupational therapists), and assistant teachers/ paraprofessionals/ teacher aides.

2. Team members receive training to engage in collaborative arrangements (see Chapter Twenty of this review).

3. The school implements a response to intervention model (see Chapter Seven of this review).

   9. Resources. Clearly, for the multi-faceted approach to inclusive education outlined in this scale to be implemented, adequate resources must be provided. These include resources to cover the cost of buildings, equipment, transport and personnel. For the past decade or so, funding models for special education have been under review in many countries, driven by rising costs, concerns over efficiency and equity in the use of resources, and concerns about the incentives inherent in funding formulae for contra-indicated practices.

   Criterion

   Adequate and appropriate equipment and appropriate levels of staffing are provided.

   Indicators

1. The national/regional/local education system makes available to the school sufficient resources for it to meet its inclusive education obligations.
2. The school board/governors ensures that resources are delivered to the school and are utilised for the purposes for which they are intended.
3. The school managers ensure that sufficient resources (material and personnel) are available at the classroom level.

   10. Leadership. Creating a positive school culture, or ethos, involves developing and implementing goals for the school. These goals should reflect the shared values, beliefs, attitudes, traditions and behavioural norms of its members, particularly those who are in leadership positions. Leadership should be exercised throughout an education system: by legislators, policy-makers, school governing bodies, principals and teachers.

   Criterion

   Those who are in leadership positions show a strong commitment to accepting and celebrating diversity, a sensitivity to cultural issues, and set high, but realistic, standards.

   Indicators

1. The school leadership consistently articulate the philosophy and goals of inclusion

2. The school leadership provides encouragement and recognition to staff member who promote inclusion.

3. The school leadership seeks adequate resources to further inclusion and ensures they are fairly distributed

4. The school leadership identifies barriers to inclusion and actively seeks to overcome them.

5. The school leadership regularly monitors the processes and outcomes of inclusion.

Two other approaches to evaluating inclusive education are worthy of discussion. The first of these is the Index for Inclusion, a set of materials to guide schools through a process of inclusive school development. It is about building supportive communities and fostering high achievement for all staff and students.The Index takes the social model of disability as its starting point, builds on good practice, and then organises around a cycle of activities which guide schools through the stages of preparation, investigation, development and review. It describes inclusion in education as:

- Valuing all students and staff equally.

- Increasing the participation of students in, and reducing their exclusion from, the cultures, curricula and communities of local schools.

- Restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in the locality.

- Reducing barriers to learning and participation for all students, not only those with impairments or those who are categorised as `having special educational needs'.

- Learning from attempts to overcome barriers to the access and participation of particular students to make changes for the benefit of students more widely.

- Viewing the difference between students as resources to support learning, rather than as problems to be overcome.

- Acknowledging the right of students to an education in their locality.

- Improving schools for staff as well as for students.

- Emphasising the role of schools in building community and developing values, as well as in increasing achievement.
- Fostering mutually sustaining relationships between schools and communities.
- Recognising that inclusion in education is one aspect of inclusion in society.

The Index is organised into three categories: creating inclusive cultures, producing inclusive policies, and evolving inclusive practices. Each section contains up to eleven indicators and the meaning of each indicator is clarified by a series of questions.

Another evaluation instrument was developed by New Zealand's Education Review Office (ERO) (2010) to ascertain the extent to which schools were including SWSEN with high needs (who make up approximately 3% of the student population). Thirteen categories were employed, each with sets of indicators. In part, these were derived from the *Index for Inclusion*. Examples of these are as follows:

Enrolment and induction

- The school welcomes students with high needs
- The school is prepared to make appropriate changes to support a student   with high needs (i.e. has not suggested to parents that children would be   better off elsewhere)

Identifying student needs and strengths

- The school has high quality processes in place for identifying the educational needs of students with high needs.
- The school has high quality processes in place for identifying the educational needs of students with high needs.
- The school has sought and used the student's point of view with regard to what supports their inclusion and learning.
- The school has used valid and reliable methods to identify the interests and strengths of students with high needs in order to fully support their learning and development.
- The school has processes in place for identifying the needs of students in relation to any physical, sensory, neurological, psychiatric, behavioural or intellectual impairments.
- School personnel understand that it is their role to adapt to the needs presented by a student – rather than 'fit' the student to their school.

Links with families

- The school respects and values the knowledge parents have of their child's learning, development and achievement.

- Feedback to families includes a celebration of success and is not focused on negatives or a sense of 'failure'.

- Parents are included in any IEP processes and provided with regular feedback about their child's progress and how they might complement school-based learning at home.

Coordination of services and support

- The school has coordinated an appropriate range of services or personnel in support of any specialised needs presented by students with high needs.

- The coordination and monitoring of specialist services and support for students with high needs is given high status in the school, e.g. it is overseen by an effective, senior member of staff.

- Teachers share their knowledge of the needs, likes, interests and specialist support requirements of students as they progress through the school, from year to year (i.e. there is a formal process of planning for students as they progress from teacher to teacher)

School-wide culture

- The board of trustees and principal emphasise the importance of an inclusive culture through their comments, policies, processes, resourcing and planning.

- The principal provides ethical leadership for the school on the importance of meeting the diverse needs of all students, including students with high needs.

- There is a school-wide emphasis on meeting the needs of all students, including students with high needs.

- The board has invested in appropriate resources to support inclusion (this includes the board using special education funding and staffing (ORRS, Learning Support etc.) to support students with high needs.

- Regular students have been provided with coaching, support and modelling to appropriately relate to students with high needs.

- There is an absence of bullying (especially towards students with high needs).

- There is evidence that the school has adapted its physical environment to meet the needs of current students with high needs.

Relationships with peers

- The relationships students with high needs have with their peers are supportive.
- Students with high needs have their social development supported as required.
- Students with high needs have friendships with regular students.
- Students with high needs are included in social events in and outside of the school (e.g. school socials, birthday parties).

Classroom teaching

- Students with high needs learn alongside their peers in regular classes as much as possible.
- Learning programmes support the objectives identified in IEPs or other planning
- Students with high needs have well-planned learning experiences, not just 'busy work'.
- Teaching is planned and differentiated with the learning of all students in mind.
- Lessons encourage students with high needs to participate and interact.
- Students with high needs work cooperatively along with other students.
- Teacher aides support teachers to include students with high needs.

Extra-curricular involvement

- Students with high needs take part in sporting and cultural activities alongside regular students at the school.
- Students with high needs take part in physical activity (where appropriate) and other learning activities outside the classroom.

Learning supports

- The school has resourced high quality physical and educational support for the range of needs demonstrated by students with high needs.
- The effectiveness of learning supports are monitored.
- Learning support is coordinated with IEPs, and well developed objectives for student learning and development.

Professional development and support

- Staff receive high quality professional development to understand and support the specific learning needs of particular students with high needs.
- Professional development and support is readily accessible.

- Professional development for teachers and teacher aides supports their ability to teach students with diverse needs.

  Culturally responsive

- The school has culturally responsive processes to identify and support the needs and aspirations of Maori and Pacific students with high needs and their whanau/families.

  The achievement of students with high needs

- There are high expectations for all students (including students with high needs).

- The achievements of students with high needs reflect deep and/or meaningful learning.

- Students with high needs are making progress in their IEPs and/or any particular academic, intellectual, behavioural, communication, social or physical goals agreed to be appropriate.

  The benefits to mainstream students

- Students without high needs demonstrate tolerance, warmth, understanding and friendship to students with high needs in their classrooms.

- Parents, whanau and the wider school appreciate the benefits for all students of their children working with students with high needs.

13.6   Research Evidence Relating to Inclusive Education

In his review of efficacy studies of inclusion, Lindsay (2003) concluded that they do not provide a ringing endorsement of the concept. Similarly, Kavale & Mostert (2003) claimed that the evidence is mixed at best and clearly suggests the need for caution. They noted, for example, that analyses of regular classrooms in the US show that they are places where undifferentiated, large group instruction dominate and teachers make few adaptations, with the result that there is little individualised programming. They also noted that while some positive outcomes have been found, there is also evidence of negative consequences for students with disabilities, including poor self-concepts and inadequate social skills and low levels of peer acceptance.

Research into inclusive education can be divided into studies concerned with ascertaining the perceptions various stakeholders hold towards inclusion and those investigating academic and social outcomes.

13.6.1 Teachers'/principals' perceptions

In order for inclusion to work in practice, teachers and principals in regular schools must accept its philosophies and demands. According to Salend & Duhaney (1999), in their review of studies (largely American), educators have varying attitudes towards inclusion, their responses being shaped by a range of variables such as their success in implementing inclusion, student characteristics, training and levels of support. Some studies reported positive outcomes for general teachers, including increased skills in meeting the needs of all their students and developing an increased confidence in their teaching ability. Negative outcomes included the fear that the education of non-disabled children might suffer and the lack of funds to support instructional needs. For special educators, the benefits included an increased feeling of being an integral part of the school community and the opportunity to work with students without disabilities.

Similarly mixed, but generally positive, attitudes towards inclusion were reported by Scruggs & Mastropieri (1996). About two-thirds of the US teachers they surveyed supported the concept of mainstreaming/inclusion. A smaller majority were prepared to include students with disabilities in their own classes, their attitudes depending on the type and severity of the disability. Only one-third or less believed they had sufficient time, skills or resources necessary for inclusion, especially for students with severe disabilities. In their study of Canadian teachers' and principals' beliefs about inclusive education, Stanovich & Jordan (1998) found two strong predictors of effective teaching behaviour in inclusive classrooms. The strongest one was the 'subjective school norm' as operationalised by the principal's attitudes towards heterogeneous classrooms. The second major predictor was an 'interventionist school norm', a measure derived from a scale ranging from the idea that problems exist within students ('pathognomonic'), at one end, to the idea that problems result from the interaction between the student and their learning environments ('interventionist'), at the other end.

13.6.2 Parents' perceptions

Parents play a critical role in bestowing social validity on inclusion and in facilitating its implementation. Duhaney & Salend (2000) reviewed 17 studies published between 1985 and 1998 that investigated the perceptions of inclusion held by parents of children with and without disabilities. They found that these were complex, multidimensional, and affected by a range of intervening variables. Both groups had mixed, but generally positive, perceptions of inclusive education. Parents of children with disabilities believed that inclusion promoted acceptance by non-disabled peers and helped their children's social, emotional and academic development. Concerns included a loss of access to specialised personnel. Parents of children without disabilities valued their children's greater awareness of others' needs and their enhanced acceptance of human diversity. Some, however, were concerned that their children would not receive sufficient assistance from their teachers and they might emulate inappropriate behaviours of children with disabilities.

There is evidence that countries with more segregated provisions (e.g., Belgium, France, the Netherlands (until recently), Germany and Switzerland) report parental pressure for inclusion, and there is positive parental support in countries with existing 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 and Sweden) (European Agency for Development in Special Needs Education, 2003).

13.6.3 Students' perceptions

Inclusive education involves several stakeholders, not least of which are the students with disabilities and their peers without disabilities. What are their perceptions of inclusive education? Klinger & Vaughn (1999) presented a synthesis of 20 US studies of programmes involving students with high incidence disabilities in settings ranging from kindergarten to grade 12. The consensus of the findings is that those with and without disabilities wanted the same activities, books, homework, grading criteria and grouping practices. Both groups recognised that since not everyone learns in the same way or at the same speed, teachers should slow down instruction when necessary, explain concepts more clearly, and teach learning strategies.

A recent New Zealand study by Hornby (2010) challenged the assumption that inclusive education is applicable to all SWSEN, irrespective of their degree of disability. He studied former students of two special schools – one for students with learning disabilities and the other for students with behavioural difficulties - who had been re-integrated into mainstream schools for the last few years of their schooling.The results indicated that many of the students subsequently exhibited limited inclusion in their communities in terms of low levels of employment, education and community adjustment. The students also reported mainly positive experiences regarding their time in special schools or units and mainly negative experiences in mainstream classes. Hornby attributed these findings, in part at least, to the goals of education for the last few years of schooling being focused on academic attainments, when vocational, social and life skills may have been more useful in assisting the SWSEN to make successful transitions to adult life.

13.6.4 Educational achievement and psychosocial development

There is a considerable, almost bewildering, body of research that addresses the question of how inclusion impacts on the achievements of students with and without special educational needs. In interpreting these studies, several cautions must be taken into account: (a) some of the earlier studies may not be relevant to current conditions, (b) many of the studies compare placements only and do not 'drill down' into the nature of the educational programmes the students received, (c) many studies are methodologically flawed, and, of course, (d) all studies are specific to the context in which they were conducted.

In general, methodologically sound studies have come up with mixed results, the majority reporting either positive effects or no differences for inclusion. (Some would argue that if there are no differences, this is also an argument for inclusion: why have segregated education programmes when they are no better than placement in regular classes?) The following is a representative sample of research carried out in this area.

Positive findings. In an early meta-analysis, 11 empirical studies carried out between 1975 and 1984 were analysed. It was shown that mainstreamed disabled students (mentally retarded, learning disabled, hearing impaired, and mixed

exceptionalities)[1] consistently outperformed non-mainstreamed students with comparable special education classifications. Two types of mainstreaming were included: part-time with occasional pull-out resource class attendance, and full-time inclusion in general classes. Of the 115 effect sizes calculated, two-thirds indicated an overall positive effect of mainstreaming. The overall effect size was 0.33, which translates into a gain of 13 percentiles for students in mainstreamed settings (Wang & Baker 1986). In a more recent meta-analysis, Hattie (2009) obtained a somewhat more modest effect size of 0.21 in favour of mainstreaming.

A Canadian study of 3rd grade students with 'at risk' characteristics (e.g., learning disabilities, behaviour disorders) compared the impact on achievement of a multi-faceted inclusive education programme. The intervention group (N=34) received all instruction and support in general education classrooms, while the comparison group (N=38) received 'pull-out' resource room support. The intervention group also received a programme that included collaborative consultation, cooperative teaching, parent involvement and adapted instruction in reading, writing and mathematics. The comparison group continued using general education teaching methods characterised by whole-class instruction and minimal cooperation between the general and special teachers. Significant effects were found in the writing scores for the inclusive education group. The general education students were not held back by the presence of the at-risk students in the classroom; on the contrary, their reading and mathematics scores benefited from the additional interventions offered by the programme (Saint-Laurent et al., 1998).

A USA study addressed the effects of an inclusive school programme on the academic achievement of students with mild or severe learning disabilities in grades two - six. The experimental group comprised 71 learning disabled students from three inclusive education classrooms. In these classrooms special education teachers worked collaboratively with general education teachers, each student's programme was built upon the general education curriculum, and instructional assistants were used to support the SWSEN. The control group of 73 learning disabled students were in classrooms which were to become part of the inclusive programme, but in which the students received traditional resource class programmes. Results showed that the

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[1] Throughout this section the original terminology employed by the authors is retained.

students with mild learning disabilities in the inclusive classrooms made significantly more progress in reading and comparable progress in mathematics, compared with those in the resource classes. Students with severe learning disabilities made comparable progress in reading and mathematics in both settings (Waldron & McLeskey, 1998).

In a study carried out in Hawaii, the effects of placement in general education classrooms or in self-contained special education classrooms on the social relationships of students with severe disabilities were reported. Nine matched students were studied in each of the two placements. The results showed that those who were placed in the general education classrooms had higher levels of contact with non-disabled peers, received and provided higher levels of social support, and had much larger friendship networks (Fryxell & Kennedy, 1995). These results were echoed in growing research evidence suggesting that children who attend special schools are more likely to experience bullying than children who attend mainstream settings, and that inclusive education is a key factor in reducing or eliminating bullying (Rose et al., 2011). As noted by Cologon (2013), too, research evidence also suggests that genuinely inclusive education allows SWSEN to experience greater social interaction and build and develop friendships they may not have encountered otherwise (Finke et al., 2009; Antia et al., 2011), and to engage in less disruptive behavior (Finke et al., 2009; Mogharreban & Bruns, 2009; Stahmer et al., 2011).

One of the most comprehensive studies of the effects of inclusive programmes on the development of social competence in students with severe disabilities is that reported by Fisher & Meyer (2002). In a matched-pairs design, 40 students were assessed across two years of inclusive versus self-contained special education classrooms. Those in the inclusive programme made significant, albeit small, gains on measures of social competence, compared with students in self-contained classrooms

Several Dutch studies have found better academic outcomes for SWSEN in inclusive classrooms, compared with those in segregated settings (de Graaf et al., 2013; Peetsma et al., 2001). For example, another Dutch study reported on the differences in academic and psychosocial development of at risk students in special and mainstream education. It was found that those in special education classes did less well in academic performances and that these differences increased as the

students got older. In psychosocial development, variables such as social behaviour and attitudes to work also favoured students in regular classes (Karsten et al., 2001).

A UK study compared the outcomes for adolescents with Down syndrome of similar abilities but educated in mainstream or in special schools. The results showed no evidence of educational benefits for those in segregated settings, despite the higher teacher-student ratios. Those who attended their neighbourhood mainstream schools made significant gains (two-three years) over their special school peers in expressive language and in academic achievement (Buckley, 2006). Note, however, that this study has not been published in peer-reviewed journals.

There is substantial evidence that inclusive education enhances the communication and language development in both SWSEN and their non-disabled peers (Finke et al., 2009; Fisher & Shogren, 2012; Hart & Whalon, 2011; Stahmer et al., 2011).

A 2004 study in England showed that the presence of relatively large numbers of SWSEN (not analysed by category) in ordinary schools did not have a negative impact on the achievement of general education learners at the local education authority level. Rather, attainment seemed to be largely independent of levels of inclusive education. Other factors, such as socio-economic status, gender, ethnicity and language, seemed to be much more significant. Furthermore, the researchers found evidence that SWSEN were making good progress academically, personally and socially. They also found some evidence (chiefly in the views of teachers and pupils) that inclusion can have positive effects on the wider achievements of all learners, such as on their social skills and understanding. On the other hand, they also found some indications that having special educational needs might be a risk factor for isolation and for low self-esteem (Dyson et al., 2004).

Another English study produced similar results, finding no evidence that the presence of higher proportions of learners with special educational needs (also not analysed by category) in secondary schools lowered the performance of general education students. Indeed, as with the previous study, many educators in those schools believed that the inclusive education strategies used actually contributed to improved overall educational achievement (Rouse & Florian, 2006).

The impact of inclusion on the achievement of general education elementary school students was also investigated in a US study reported by Sharpe et al. (1994).

Two groups were studied: 35 students whose classes included five students with learning disabilities, and 108 who had no classmates with special educational needs. Measures of academic achievement were taken over a three-year period at three points: pre-inclusion, inclusion and post-inclusion. The researchers found no significant differences between the two groups of learners on basic skills of language arts, reading and mathematics. Certainly, there was no evidence of any decline in the academic or behavioural performances of learners in the inclusive setting.

Similar findings were reported in a recent Canadian study. Friesen et al. (2009) analysed data from British Columbia to compare the performance of successive cohorts within every public elementary school in B.C. (as measured by the change in individual test scores between grades 4 and 7), to see if the proportion of disabled peers makes any difference to the achievement of non-disabled students. They concluded that 'Attending school with a higher percentage of students with disabilities is found to have only extremely small and statistically insignificant effects on the reading and numeracy achievement of non-disabled students' (p.1).

A range of other studies confirm the previous findings that students who are not disabled benefit academically from inclusive education, with equal or better academic outcomes compared to those in non-inclusive settings (Dessemontet & Bless, 2013; Farrell, et al., 2007; Kalambouka et al., 2007; Kliewer, 2008; Odom et al., 2011).

Mixed and negative findings. In one of the earliest meta-analyses, 50 studies compared general (i.e., inclusive) and special class placements. It was found that placement in general classes resulted in better outcomes for learners with mild mental retardation, but poorer outcomes for students with learning disabilities or behavioural/ emotional problems (Carlberg & Kavale, 1980).

A comprehensive review of inclusion research involving students with autism also reported mixed results. In one set of studies, those who were fully included (a) displayed higher levels of engagement and social interaction, (b) gave and received higher levels of social support, and (c) had larger friendship networks. This was counterbalanced, however, by another study that found that these students were more frequently on the receiving, rather than the giving, end of social interactions. The review also described a study in which the effect of inclusive education, compared with segregated education, on the language ability of autistic students was evaluated.

The fact that there were no differences between the two placements was interpreted as supporting inclusion, since segregated placements were shown to be of no benefit (Harrower & Dunlap, 2001).

Peetsma et al. (2001) reported on a longitudinal study on the effects of inclusion on the academic and psychosocial development of Dutch students with mild learning and behavioural difficulties. The results were that, after two years, only a few differences in development were found: students made more progress in mathematics in inclusive settings, but school motivation developed more favourably in special schools. After four years, students in regular schools had made more progress in academic performance, whereas there were no differences in psychosocial functioning. However, a small–scale qualitative study, which was incorporated as part of the major study, showed that students with psychosocial problems made somewhat better progress in special education than in regular education, pointing to the need to pay attention to the psychosocial development of students with mild disabilities when they are placed in inclusive settings.

Several studies have found that quality of instruction, rather than placement, is the most important predictor of student achievement. For example, in one study of mathematics achievement of students with hearing impairments, placement in regular or special classes did not seem to impact on achievement. Rather specific features of quality placement included a supportive teacher, regular and extensive reviews of material, direct instruction and a positive classroom environment (Kluwin & Moores, 1989).

These findings were echoed in a report by Ofsted (2006) on English provisions for SWSEN. It considered that the most important factor in determining the best outcomes for pupils with learning difficulties and disabilities was not the type but the quality of the provision. Effective provision was distributed equally in the mainstream and special schools visited, but there was more good and outstanding provision in resourced mainstream schools than elsewhere.

One final point of mixed evidence can be found in a report from the European Agency for Development in Special Needs Education (2003). This suggested that inclusion generally works positively at the primary school level, but serious problems emerge at the secondary level. This was attributed to increased topic specialisation,

the different organisation of secondary schools, and the increasing gap between the achievement of SWSEN and other students with age.

13.7   Critiques of Inclusive Education

As Lindsay (2003) has pointed out, while the philosophy of inclusive education holds considerable sway at the turn of the 21st century, there is by no means unanimous support for it in the literature. Although he believes that any segregative provisions constitute a denial of human rights to disabled persons, Oliver (1996) believed that the success of integration at the ideological level has made it almost impossible for it to be examined critically. So what are the principal points that have been raised in the many critiques of inclusive education?

Starting with Lindsay (2003), he claimed that UNESCO's Salamanca Statement (1994) contains many contestable features: an overemphasis on the uniqueness of individual learners, a lack of clarity as to what is a regular school, and an imbalance of emphasis on the social model compared with the medical model. With regard to the latter point, while supporting the trend away from a medical (within child) model to a social (environmental) model, Lindsay felt that the recent narrow adherence to the social model has promoted the notion that inclusion is solely a question of rights and that the question of its efficacy in practice is irrelevant. He argued that it is not a matter of one or the other model but of finding the right balance between the two and of understanding how each interacts with the other. He further argued that the best way of enhancing children's rights is through rigorous, substantial research projects that demonstrate effectiveness.

The issue of what model is the most appropriate in determining the way forward in inclusive education was discussed by Clark et al. (1995). Until recently, they claimed, special education has been dominated by two paradigms: the psycho-medical one, which focuses on deficits located within individual students, and the socio-political one, in which the focus is on structural inequalities at the macro-social level being reproduced at the institutional level .[1] To these two paradigms, Clark et al. added a third, an 'organisational paradigm', in which special education is seen as the consequence of inadequacies in mainstream schools and, consequently, ways should be found to make them more capable of responding to student diversity. This can be

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[1] See also Chapter Three of the present review for a more detailed discussion of various paradigms.

achieved through such means as schools implementing findings from research into effective teaching, operating as problem-solving organisations, and supporting teachers through the change process.

In his critical examination of inclusive education, Hegarty (2001) made three main points. Firstly, he argued that if the notion of inclusion is to have any utility it must signify something other than excellence in education or good schools, which some definitions seem to highlight. Secondly, he asserted that for some SWSEN being included in a regular school environment is neither possible nor desirable (e.g., students with a visual impairment will need mobility training outside a regular classroom). And, thirdly, he claimed that while the notion of inclusion is important, an over-emphasis on it runs the risk of distorting the hierarchy of values in education generally, which has as its core the twin objects of developing young people's potential and equipping them for adult life.

Several writers have criticised the employment of what they perceive to be rhetoric on behalf of inclusive education, at the expense of empirical evidence. Thus, with a US frame of reference, Fuchs & Fuchs (1994) argued that 'the field's rhetoric has become increasingly strident and its perspective increasingly insular and dissociated from general education's concerns' (p.295). They felt that radical proponents of full inclusion, such as Skrtic et al. (1996) and Lipsky & Gartner (1996, 1999) want nothing less than the elimination of special education and its continuum of placements. In a similar vein, other US writers asserted, like Kavale & Mostert (2003), that the ideology of full inclusion has influenced policy and practice disproportionately to its claims of efficacy, with its proponents often rejecting empirical evidence in favour of the postmodern. Likewise, Sasso (2001) and Kauffman (1999) have presented swingeing attacks on what they perceive as postmodern and cultural relativist doctrines in special education in general and inclusive education in particular. Kauffman (1999) went on to question the validity of some assumptions made by 'full inclusionists', suggesting they have 'lost their heads about place, about the spaces occupied by people with disabilities' (p.246) and that physical access does not necessarily imply instructional access. At the very least, these writers urge caution in the implementation of full inclusion. Preferably, as Kavale & Mostert (2003) argued, empirical evidence should be the cornerstone of deciding where students with special needs should be served. Or, as Sasso (2001)

suggested, rather than treating inclusion as an outcome measure, it would be more logical and helpful to view it as a treatment variable.

Other criticisms have been advanced. These include the challenge of Fuchs & Fuchs (1994) to the view that the mainstream can incorporate students with disabilities when it has so many difficulties in accommodating existing student diversity. From an English perspective, Norwich (2002) adopted a similar, albeit somewhat less critical, position, arguing that there is properly a duality about the field of educating SWSEN. While the field should have integral connections to general education, its distinctiveness should also be recognised. This relationship, he argued, is best conceptualised as a 'connective specialisation', a term which refers to an interdependence of different specialisms and a sharing of a relationship to the whole. Norwich felt that his position stood somewhere between both the 'separatist' and the 'radical or full inclusion' positions. Hall (2002) has presented a more radical view, arguing that proponents of inclusion overlook the value of the 'disability culture' in fostering opportunities for students with disabilities to associate with and learn alongside others who share similar identities and life experiences. She concluded by suggesting that changes to the existing special education system, rather than a movement to full inclusion, would be more effective in supporting the disability culture.

13.8   Summary

1. *Inclusive education is one of the most dominant issues in the education of SWSEN.*

2. *It is not unproblematic, both conceptually and practically.*

3. *A commonly accepted definition of inclusive education is: SWSEN having full membership in age-appropriate classes in their neighbourhood schools, with appropriate supplementary aids and support services.*

4. *In recent years, the concept of inclusive education has been broadened to encompass not only students with disabilities, but also all students who may be disadvantaged.*

5. *Advocacy for inclusive education revolves around three main arguments:*

- *inclusive education is a basic human right;*

- *in designing educational programmes for students with disabilities, the focus must shift from the individual's impairments to the social context, a key*

feature of which should be a unitary education system dedicated to providing quality education for all students; and

- *since there is no clear demarcation between the characteristics of students with and without disabilities, and there is no support for the contention that specific categories of students learn differently, separate provisions for such students cannot be justified.*

6. *The characterisation, purpose and form of inclusive education reflect the relationships among the social, political, economic, cultural and historical contexts that are present at any one time in a particular country and/or local authority.*

7. *While many countries seem committed to inclusive education in their rhetoric, and even in their legislation and policies, practices often fall short.*

8. *The United Nations and its agency, UNESCO, have played, and are playing, a significant role in promoting inclusive education.*

9. *Inclusive education goes far beyond the physical placement of children with disabilities in general classrooms, but requires nothing less than transforming regular education by promoting school/classroom cultures, structures and practices that accommodate to diversity.*

10. *Several scales for evaluating inclusive education have been developed.*

11. *The evidence for inclusive education is mixed but generally positive, the majority of studies reporting either positive effects or no differences for inclusion, compared with more segregated provisions.*

12. *In general, the presence of SWSEN in regular classrooms does not have a negative impact on the achievement of other students, and often has a positive impact.*

13. *Criticisms of inclusive education have focused on what some writers consider to be an emphasis on ideology at the expense of empirical evidence and challenges to the view that the mainstream can incorporate students with disabilities when it has so many difficulties in accommodating existing student diversity.*

CHAPTER FOURTEEN

TRANSITION FROM SCHOOL TO

POST-SCHOOL EDUCATION AND WORK [1]

Increasingly, the importance of taking a life-long and life-wide perspective on the education of SWSEN is being recognised. This draws our attention to the importance of preparing them for making an effective transition from school to post-school situations.

The International Labour Office (1998) defined transition as:

> …a process of social orientation that implies status change and role (e.g., from student to trainees, from trainee to worker and from dependence to independence), and is central to integration into society …Transition requires a change in relationships, routines and self-image. In order to guarantee a smoother transition from school to the workplace, young people with disabilities need to develop goals and identify the role they want to play in society. (pp.5-6)

The purposes of transition programmes for students with disabilities are many: to provide them with the academic and social skills to enable them to become competitively employed and/or to continue their participation in education, to enhance their economic and social welfare, and to enjoy an enhanced quality of life through becoming as independent as possible. To achieve these goals, transition programmes should be the shared responsibility of many agencies and organisations: education, labour, welfare, health, NGOs, and, of course, governments at various levels within country systems.

For many countries, however, affecting a successful transition programme from school to post-school life for students with disabilities is an ongoing challenge. Numerous countries fail to effectively manage the process. Common underlying reasons are society's lack of awareness of people with disabilities, lack of understanding of their situation and lack of knowledge on how to include them, as well as discrimination and over-protection. Even where there is legislative support for the employment of people with disabilities, they continue to face considerable stigmatisation.

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[1] This chapter is based largely on Mitchell (2015a).

The result is that individuals with disabilities are frequently overlooked as a productive labour force with many of them not working and not looking for work, but relying on their parents or family, or living on social welfare for their economic and physical support. Sometimes they are even considered by their families and communities to be shameful persons who do not need to be educated. Even in developed countries, employment rates for people with disabilities are very low. In a USA study, for example, among all working-age (18-64 years) people with disabilities, only 21% said they were employed full- or part-time, compared with 59% of working-age people without disabilities (Kessler Foundation & National Organization for Disability, 2010). Also, in England, an overview of disability and the transition to adulthood noted that disabled children were at high risk of growing up in poverty, were less likely than non-disabled to achieve adult goals in employment, economic independence, personal autonomy, independent housing, and were less likely than nondisabled to live independently of their parents (Hendey & Pascall, 2001).

14.1   Underlying Assumptions

In designing transition systems for SWSEN, the following assumptions are made:

- Transition to adulthood is a complex process, with many factors affecting students' lives after they finish their schooling: their own and their family's characteristics, economic conditions, community contexts, and the availability of services (Kohler & Field, 2003).

- People with disabilities are at a disadvantage on the open labour market, not necessarily because of any inherent incapacity associated with their disability, but because of their low level of access to education and training and their lack of appropriate qualifications (International Labour Organisation, 1998).

- People with disabilities are diverse, with varying abilities, interests and needs.

- Quality transition programmes for students with disabilities must be based on the expectation that all such students can achieve successful post-school outcomes, whether it is post-secondary education and training, meaningful employment, and a satisfying quality of life as an adult.

- Societies have a responsibility to identify and remove barriers confronting people with disabilities in education and employment.

- There is no single pre-determined pathway for persons with disabilities throughout the transition process. One size does not fit all. Rather, there should be multiple options with flexibility to switch between school education, further education and workplace experience with relative ease.

- Educational and employment opportunities and outcomes are likely to vary considerably from person to person and from society to society (Aston et al., 2005).

- Quality transition programmes result from the support and commitment of qualified and knowledgeable personnel who collaborate with each other, with the families of students with disabilities, and with the students themselves.

- Students with disabilities have diverse abilities, interests, needs and aspirations and these can change over time as they mature and gather more experiences. Thus, transition planning should be seen as an ongoing process, rather than a once-and-for-all event (OECD, 1997).

- The focus of transition planning is on what the person with a disability is capable of performing, whilst at the same time paying due regard to the challenges their disabilities create. In other words, the underlying philosophy driving the education of students with disabilities should be a strengths-based model, rather than a deficit model (Cleland & Smith, 2010).

- The student with a disability is central to transition planning.

- The ultimate aim of transition planning is to enhance the individuals' quality of life as citizens and as members of their culture, to maximise their potential for work and education, and to help them achieve a satisfying balance between independence and interdependence.

14.2 Transition Standards

In the remainder of this chapter, a set of Standards will be summarised, arranged in six domains. These were originally developed by the author for the Jakarta office of UNESCO in 2011. They were intended for the use of Governments, ministries, agencies and individuals involved in planning and implementing comprehensive transition systems for students with disabilities from school to post-school settings, especially work. The Standards have been developed from international best practices, legislation, policies and research literature, as well as comments from participants in two workshops in South East Asia. It is recognised

that most of the Standards have their origins in developed countries and that not all countries are in a position to implement all of them because of limitations in resources. As is the case with the UN *Convention on the Rights of People with Disabilities* (United Nations, 2008), 'progressive realisation' of most of the Standards, in line with the resources of individual countries, is expected.

Domain I: Raising awareness on the right to education and the right to employment

I.1: Steps are taken to raise awareness in the community on the unemployment and underemployment of people with disabilities.

I.2: Steps are taken to advocate for a common culture that embraces diversity in general, and that cares for people with disabilities. For example, Governments reflect their positive, caring approach to people with disabilities by ratifying and adhering to the UN Convention on the Rights of People with Disabilities and the UN Standard Rules on the Equalization of Opportunities for Persons with Disabilities (United Nations, 1993). It also passes anti-discrimination laws.

I.3: Social and legal protection mechanisms based on a rights-based framework are established for people with disabilities to ensure they have equal opportunities in education and in the world of work. For example, Government policies and strategies in the alleviation of poverty and unemployment take people with disabilities into account. Also, Governments require that persons with disabilities have equal rights to work and gain a living. Countries are to prohibit discrimination in job-related matters, promote self-employment, entrepreneurship and starting one's own business, employ persons with disabilities in the public sector, promote their employment in the private sector, and ensure that they are provided with reasonable accommodation at work (United Nations, 2008).

I.4: A social protection system is designed to prioritise students with disabilities from families with low incomes and to reduce participation constraints on such students (see also Standard I.6). For example, affordable, accessible, adequate and portable student loans, as well as means-tested grants are provided for those who cannot afford the costs of post-secondary education (Council for the European Union, 2010).

I.5: The Government establishes an accessible common system of school education and training to support the transition of students with disabilities into the

world of post-school education and work. For example, the Government provides interpreters for deaf students, who are capable of understanding the form of communication used by such students (e.g., signing) and are familiar with the deaf culture.

I.6: Transition programmes for students with disabilities are extended to cover out-of-school students (including those who have dropped out of school) and those who are homeless or runaway. For example, the Government actively encourages out-of-school children, including those with disabilities, into the education system and it encourages schools and communities to map households and identify out-of-school children.

Domain II: Strengthening policies

II.1: Policies are put in place through legislation and regulations to ensure equal opportunities for students with disabilities to access quality school-to-post-school education and/or work transition programmes, including vocational training. The Government reviews the place of vocational education and training/technical and vocational education and training programmes in preparing all students (including those with disabilities) for productive adulthood.

Domain III: Strengthening personnel involved in transition

III.1: School principals and school governing bodies receive training to take on leadership roles in conducting school-to-post-school transition programmes for students with disabilities.

III.2: Teachers receive training in requisite knowledge, skills and attitudes to meet the instructional needs for the school-to-post-school transition of students with disabilities. This training occurs at both the pre-service and in-service levels. Teachers involved in transition programmes are given opportunities to visit enterprises in the community to obtain first-hand knowledge of workforce expectations. Similarly, practitioners from the employment sector are invited to schools (Meijer et al., 2006).

III.3: Other personnel (e.g., vocational rehabilitation counsellors, careers teachers, transition service coordinators/intermediaries, case managers, key workers, job coaches, etc.) receive training in requisite knowledge and skills to perform their roles for the school-to-post-school transition of students with disabilities.

Domain IV: Strengthening school educational services for students with disabilities

IV.1: Steps are taken to promote inclusive schools where students with disabilities enrol in regular classes. The Government has a clear policy of inclusive education that is reflected in its legislation and regulations, and educational administrators at all levels of the education system understand and articulate a vision of inclusive education.

IV.2: Students with disabilities have the opportunity to participate and progress in the general curriculum, with appropriate modifications to its content and to the modes of delivery.

IV.3: The specific curricula of school to post-school transition programmes are comprehensive and relevant to the needs of students with disabilities. In designing curricula for students with disabilities, a wide range of potential occupations is considered. Transition-specific curricula include components that are valued by employers and that correlate with essential job duties.

IV.4: The Government develops systems for the comprehensive assessment of students with disabilities. This includes students with disabilities participating in their country's large-scale assessment programmes, with appropriate adaptations to the measuring instruments.

IV.5: Appropriate certification is provided for graduates of school-to-post-school transition programmes.

IV.6: Vocational education curricula, facilities, pedagogical materials and learning environments are adapted for people with disabilities and are expressed in Individual Transition Plans (Field, et al., 1998).

IV.7: Teachers employ a wide range of evidence-based teaching strategies and take a scientific approach to their teaching by designing their teaching strategies, carefully evaluating their outcomes, and re-designing them until their effectiveness is proven (Mitchell, 2014b).

IV.8: Transition planning for students with disabilities commences no later than the age of 14 or two years before they are normally expected to leave school, whichever is the earlier. Students with disabilities are encouraged to transition from school into community settings at about the same age as non-disabled students.

IV.9: Work centres in schools for students with disabilities are appropriately equipped, including assistive technology equipment.

IV.10: Vocational education and life skills for students with disabilities are taught in a combination of integration in intra-curricular school subjects and separately in extra-curricular classes (National Alliance on Secondary Education & Transition, c.2003).

IV.11: The Government, in consultation with relevant stakeholders, determines what services are needed to facilitate school-to-post-school transitions and generates a pool of specialist expertise to meet these needs.

IV.12: The Government provides financial support to assist students with disabilities in the transition from school-to-post-school situations and for them to obtain and retain employment. The Government provides sufficient funding to schools to enable the Standards outlined here to be met.

IV.13: Tertiary education providers accept students with disabilities and accommodate to their needs.

IV.14: The Government encourages national and international educational institutions, businesses, employers, and trade associations to design Internet sites, which include vocational educational programmes and labour market information that are accessible to people with disabilities.

Domain V: Strengthening cooperation

V.1: A Joint Committee (perhaps called the 'National Transition Team') consisting of representatives of key Ministries is established to collaboratively manage school to post-school transition for students with disabilities. Its functions would include aligning legislation, policies and resources, and developing a comprehensive national plan to assist and promote transition (National Alliance on Secondary Education & Transition, c.2003).

V.2: Schools cooperate with relevant government and non-government agencies, in addition to Ministries, to prepare students with disabilities for the world of work, locally, regionally and nationally. Existing 'mainstream' agencies concerned with transition from school to post-school settings are utilised and efforts to make such agencies inclusive of students with disabilities are actively pursued.

V.3: Advocacy is conducted to enhance employers' and businesses' awareness of the needs and potentials of persons with disabilities, and to establish cooperative arrangements with them to facilitate the school-to-post-school transition of such students.

V.4: National and local Governments promote the establishment of school-to-work transition programmes, such as supported employment and workplace learning, in the business and industry sectors. For example, students with disabilities are provided with supported opportunities to participate in quality work experiences prior to exiting school (e.g., apprenticeships, mentoring, paid and unpaid work, school-based enterprises, internships, etc.) (National Alliance on Secondary Education & Transition, c.2003).

V.5: Internship programmes and other workplace learning opportunities are established in secondary schools to help provide students with disabilities with work experiences and interactions with the working world. They are given opportunities to experiment with various roles without being labeled irrevocably or having to commit themselves concerning future choices (National Alliance on Secondary Education & Transition, c.2003).

V.6: The Government provides incentives to encourage employers to hire students with disabilities who have graduated from secondary school and who have participated in transition programmes. For example, the Government provides training for employers to recruit and support people with disabilities in their workplaces and it subsidises the wages of people with disabilities for an initial period in the workforce.

V.7: Ongoing support or guidance is provided to maintain involvement of persons with disabilities in competitive employment or self-employment.

V.8: Schools develop and sustain enhanced support for the school-to-post-school transition of students with disabilities who require more extensive and individualised support.

V.9: Suitable job opportunities for students with disabilities are ascertained. Transition personnel investigate labour market trends, occupations of demand and specific job requirements within their region and consult employers in the local region regarding what qualifications and attributes they look for in potential employees and any positions they may have available.

V.10: Families of students with disabilities play an integral role in the transition process (Blackorby & Wagner, 1996). For example, agencies involved in transition programmes provide families with easily accessible information about the programmes and the range of possibilities open to their child when they leave school.

V.11: Students with disabilities and their organisations play an integral role in the transition process (National Alliance on Secondary Education & Transition, c.2003). They are consulted regarding how students' rights, needs and potentials are presented to prospective employers.

V.12: Transition programmes demonstrate cultural sensitivity by taking account of their values, beliefs and worldviews, community identity, religion, and language(s).

V.13: Transition programmes are responsive to the needs of people with disabilities living in rural and remote areas.

V.14: The Government draws upon international expertise in developing and implementing its transition programmes. In particular, the Government recognises UNESCO's and ILO's leading roles with regard to transition-focused education.

Domain VI: Strengthening monitoring, evaluation and accountability

VI.1: Indicators and benchmarks to monitor and evaluate the implementation of school-to-post-school transition programmes are put in place. For example, procedures for tracking the transition progress of students with disabilities are developed and implemented.

VI.2: A system of school accreditation is established for schools providing school-to-post-school transition programmes that meet the Standards outlined here.

14.3 Summary

1. *The purposes of transition programmes for students with disabilities include providing them with the academic and social skills to enable them to become competitively employed and/or to continue their participation in education, to enhance their economic and social welfare, and to enjoy an enhanced quality of life through becoming as independent as possible.*

2. *Transition programmes should be the shared responsibility of many agencies and organisations: education, labour, welfare, health, NGOs, and governments at various levels within country systems.*

3. *Individuals with disabilities are frequently overlooked as a productive labour force with many of them not working and not looking for work, but relying on their parents or family, or living on social welfare for their economic and physical support.*

4. *Even in developed countries, employment rates for people with disabilities are very low.*

5. *There is no single pre-determined pathway for persons with disabilities throughout the transition process. One size does not fit all. Rather, there should be multiple options with flexibility to switch between school education, further education and workplace experience with relative ease.*

6. *The underlying philosophy driving transition planning for students with disabilities should be a strengths-based model, rather than a deficit model.*

7. *In planning transition programmes for students with disabilities, consideration should be given to six domains, each of which contains sets of standards: (1) raising awareness on the right to education and the right to employment, (2) strengthening policies, (3) strengthening personnel involved in transition, (4) strengthening school educational services, (5) strengthening cooperation, and (6) strengthening monitoring, evaluation and accountability.*

CHAPTER FIFTEEN

THE BUILT ENVIRONMENT

As far as possible, it is important to ensure that all the elements of the indoor physical environment that may affect students' ability to learn are optimal. Simply put, learners who spend time in well-designed, well-maintained classrooms that are comfortable, well lit, reasonably quiet, and properly ventilated with healthy air, will learn more efficiently and enjoy their educational experiences. In such environments, teachers too, will be healthier, happier and more effective as educators. What constitutes good design of indoor physical environments for SWSEN is also good design for all learners.

Four major aspects of the indoor physical environment should be attended to: physical space and equipment; temperature; humidity and ventilation; lighting; and acoustics.

15.1 Physical Space and Equipment

The importance of attending to the physical space of classrooms is illustrated in a study conducted in New York City which showed that students in overcrowded schools scored significantly lower in both mathematics and reading than similar students in less crowded conditions (Rivera-Batiz & Marti, 1995) The literature contains a range of recommendations regarding the arrangement of physical space and equipment:

- Arrange learners' workspaces to facilitate flexible grouping and differentiated instruction by allowing for whole class, small-group and individual instruction. Some learners with autism may need access to personal space calm, ordered, low-stimulus spaces, no confusing large spaces and safe indoor and outdoor places for withdrawal and to calm down (Department for Education and Employment, 2009; Vogel, 2008).

- Arrange furniture and equipment in such a way as to manage inappropriate behaviour and to disrupt undesirable 'traffic' patterns and movement around the classroom (Council for Exceptional Children (1997).

- Where necessary, ensure that all equipment and apparatus is specifically adapted for use by learners with special educational needs.

- Ensure that furniture is arranged to minimise the chance of 'clumsy' learners bumping into other learners' workspaces.
- Ensure that learners who need to be near the front of the classroom, because of hearing or vision impairments or for behaviour management purposes, are placed in those locations.
- Arrange movable room dividers to create corners in the classroom to enhance flexibility in grouping arrangements (Lang, 1996).
- Store frequently used equipment and materials in stackable drawers and crates on wheels. This allows learners to move the units to where they are needed and keeps busy areas clear. They can also more easily be brought to learners who may not have the mobility to get them by themselves.
- Label everything that has been put in containers. An effective way of doing this is to label boxes with a simple symbol, or picture, indicating what is inside (Lang, 1996).
- Make special adaptations for learners with physical disabilities who need wider doors, ramps, lifts, tables and chairs at the correct height for a wheelchair, aisles sufficiently wide to navigate, and individual workspaces.
- Ensure that thresholds and doorframes are distinctive for learners with visual impairments.
- Select desks and chairs that offer maximum flexibility in use and placement.

15.2   Temperature, Humidity and Ventilation

Several studies attest to the importance of attending to the air quality in classrooms. For example, a 1999 US study, found that ventilation was rated as unsatisfactory by 26% of schools, a rating that caused more concern to people in schools than any other environmental condition. A related statistic was that 24% of schools stated that air conditioning was needed but not available (National Center for Educational Statistics, 1999). A Swedish study investigated the impact of air quality on absenteeism in two day-care centres. It found that the introduction of electrostatic air cleaning technology reduced the level of absenteeism from 8.31% to 3.75% (Rosen & Richardson, 1999). A recent Danish study in two classes of 10-year-old learners investigated the effects of classroom temperatures and the supply of outdoor air on schoolwork. Average air temperatures were reduced from 23.6C to 20.0C and

the supply of outdoor air was increased from 5.2 to 9.6 litres per person. Singly and in combination, the experiment resulted in improved performances in reading and mathematics. Unfortunately, no separate data were reported for SWSEN (Wargocki et al., 2005).

School and classroom temperature, humidity, ventilation, and the control of mould, dust and mildew are important factors that need to be controlled. For children with multiple sclerosis, for example, excessive heat can affect them and create classroom problems, while for learners with asthma, excessive humidity and poor air quality can restrict their participation (Crowther, 2003). Even in developed countries such as the US, there is evidence that indoor air quality is far from satisfactory. In 1995, for example, around 20% of children in American schools were estimated to suffer from poor quality indoor air quality, which often leads to irritated eyes, nose and throat, upper respiratory infections, headaches and sleepiness (General Accounting Office, 1996). In such situations, ventilation needs to be improved to deliver adequate supplies of fresh air and to help dilute or remove contaminants.

The position of the World Health Organization is that, in temperate climates, the optimum temperature for indoor working is between 18C and 24C. This constitutes a thermally comfortable environment. In New Zealand, the Ministry of Education states that classrooms should be maintained at 18-20C (Ministry of Education, nd), while in the UK, minimum temperatures for classrooms are given in the Education (School Premises) Regulations, SI No2, 1999 as 18C (64.6F), but no maximum temperatures are specified. In New Zealand, a Heat Stress Index (HIS) is used as a guide. This is a formula that produces a number that represents the combined effect of the air temperature, radiant heat and the humidity.

15.3 Lighting

A recent UK review of the effects of lighting in classrooms made the following points:

- the visual environment affects learners' ability to perceive visual stimuli and affects their mental attitudes and, therefore, their performances;
- day-lighting has the most positive effects on learners' achievement;

- since day-lighting as a sole source of lighting is not feasible, it should be supplemented by automatically controlled electric lighting that dims in response to daylight levels;
- lighting should be as glare-free and flicker-free as possible, especially when computers are being used (Higgins et al., 2005).

In 1999, a study to determine the impact of day-lighting on student performance was commissioned by the California Board of Energy Efficiency. The study involved 21,000 students in California, Colorado and Washington states. The results of the study indicated that the test scores of learners with the most classroom daylight improved by as much as 26% in reading and 20% in mathematics (Heschong Mahone Group).

Recent Irish and Australian studies have drawn attention to the increasing incidence of myopia, implicating children's reduced time spent outside. For example, Saunders' (2015) research shows that 23% of British 12 and 13-year-olds have myopia[1] , compared to just 10% in the 1960s. More research suggests that British children are three times as likely to be short-sighted as Australians, who spend more time outside. According to Morgan et al. (2012), myopia has emerged as a major health issue in east Asia, because of its increasingly high prevalence in the past few decades (now 80–90% in school-leavers, compared with earlier estimates of 20%), and because of the sight-threatening pathologies associated with high myopia, which now affects 10–20% of those completing secondary schooling in this part of the world. The higher prevalence of myopia in east Asian cities seems to be associated with increasing educational pressures, combined with life-style changes, which have reduced the time children spend outside. In turn, this leads to decreased levels of dopamine in the eye (dopamine seems to prevent elongation of the eye).

Lighting needs to enable learners to see the details of given tasks easily and accurately in lighting conditions that pertain during the day and during the year. A major difference between classrooms and most other environments is that learners must constantly adjust their vision between 'heads-up' and 'heads-down' reading conditions. Lighting should take account of this range of demands on learners' vision (The Collaborative for High Performance Schools, 2002).

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[1] Myopia is defined as blurred vision beyond 2m and is usually caused by the elongation of the eyeball.

Here are some suggestions:

- Ensure that children receive two-three hours a day of outdoor light (Morgan et al., 2012).

- Maximise the use of day-lighting, but supplement it by electric lighting, which can, if possible, be automatically dimmed in response to daylight levels.

- Try to use a combination of direct and indirect lighting to reduce glare and reflections as much as possible.

- Place mirrors on walls opposite windows to maximise natural light.

- Be quick to replace burnt-out lights.

- About 20% of a classroom's wall space should consist of windows.

- Ensure that the contrast between a task object and its immediate background is sufficient to enable learners to clearly view the task.

- Use convex whiteboards to reduce glare.

- Check that fluorescent lighting is in good working order as excessive flickering could   trigger a seizure in learners with photosensitive epilepsy (Anshel, 2000). Also, note that fluorescent   lighting can be aversive to learners with autism spectrum disorders.

- The lighting level for computer use should be about half as bright as that normally   found in a classroom.

- Strictly enforce the amount of time that learners continuously use computers. A 10-minute break every hour will minimise focusing problems and eye irritation.

- Develop the '20/20/20 rule': every 20 minutes, take 20 seconds and look 20 feet (6   meters) away.

- Carefully check the height and angle of computer screens (just below eye level and about 20 degrees angle), and the distance from the eyes (18-26 inches or 45-66 cm).

- Ensure that there is no glare on the screen (use a mirror to check sources of glare).

15.4   Acoustics

Since much classroom learning takes place through listening and speaking (estimates vary from 50-90 per cent, according to Schmidt et al., 1998), it is essential

that learners can hear educators' speech clearly. Unfortunately, this is not always the case, with typical classrooms in many developed countries providing inadequate acoustical environments. In a New Zealand study of 106 classrooms, for example, it was found that only 4% had acceptable noise levels for instruction (Blake & Busby, 1994). This situation, which is by no means limited to New Zealand, has a major impact on the students' opportunities to learn, especially for those with mild or fluctuating hearing loss, learning disabilities, attention disorders, language disabilities

Several studies provide convincing evidence of the importance of good acoustics. Firstly, a New Zealand study examined the effects of sound-field amplification (SFA) for four learners with Down syndrome aged six to seven years. The results showed that the learners perceived significantly more speech when a SFA system that amplified the investigator's voice by 10dB was used (Bennetts & Flynn, 2002). Secondly, in another New Zealand study, participants were 38 learners aged 5 -6 years from two classes at a low socioeconomic primary school. Children in Class 1 received SFA and an eight-week class-based teacher-administered phonological awareness (PA) programme. Class 2 received SFA only. A significant learning effect for all children occurred during the first phase of the monitoring period. Following intervention, Class 1 demonstrated a significant difference compared to class 2 in a PA assessment. Teacher questionnaires indicated that children's listening skills improved with SFA. The significant difference observed in one measure of PA between classes demonstrated that the combination of enhanced classroom acoustic environment and PA intervention actively improved PA development (Good, 2009). Thirdly, another New Zealand study examined the effects of SFA on learners with and without hearing impairments. Even though the amplification increased the signal-to-noise ratio by only 5-10dB (which was still below the international standard of 15dB), the study found improved on-task behaviours and phonological awareness for both groups of learners (Allcock, 1997). Fourthly, the aim of an Australian study was to examine the effects of SFA intervention on the acquisition of specific educational goals for children in mainstream cross-cultural classrooms. Twelve classes of Year 2 children participated in the project. For classes 1 to 8, the listening environments were alternated between amplified and unamplified conditions, each condition being for one semester of the school year. Beneficial effects of SFA were obtained in all three skill areas of reading, writing and numeracy. The beneficial effects occurred

irrespective of whether the children had English as a native language or English as a second language (Massie & Dillon, 2006). Fifthly, also using a SFA system that increased the intensity of a teacher's voice by 10dB, a US study found that nine elementary school learners with developmental disabilities made significantly fewer errors on a word identification task than they made without amplification (Flexer et al., 1990). Sixthly, in a large-scale US study, a special project was designed to determine if young learners' listening and learning behaviours improved as a result of SFA. The three-year project compared the results of learners in 64 experimental classrooms (i.e., amplified) with those in 30 control classrooms (unamplified). The results showed that those in amplified classrooms (where teachers voices had an average increase of 6.94dB) showed significant improvement in listening and learning behaviours and progressed at a faster rate than those in the unamplified classrooms, with younger learners showing the greatest improvement. No separate data were reported for SWSEN (Rosenberg et al., 1999). Seventhly, a recent UK study that examined the effects of classroom noise on learners' performances found that noise negatively impacted on all learners, especially those with special educational needs (Shield et al., 2002). In a study of 142 London primary schools, the same authors found that 65 per cent were exposed to noise levels in excess of World Health Organization standards and that there was a significant negative relationship between noise levels and scores on nationally standardised tests. In other words, the higher the noise levels, the less well the school performed in the tests (Shield & Dockrell, 2005).

In providing an optimal acoustic environment, three inter-related factors should be attended to (ASHA Working Group on Classroom Acoustics, 2005; ASHA Special Interest Division 16, and Educational Audiology Association, 2002):

- Poor *signal-to-noise ratio* (i.e., an educator's voice compared with background noise). For example, if a teacher's voice arrives at a learner's desk at 50dB and the background noise is 55dB, the resulting signal to noise ratio (SNR) is -5. This compares unfavourably with an optimum SNR of +15dB for learners with normal hearing and very unfavourably with the requirements of learners with special educational needs.
- *Excessive sound reverberation* (i.e., sound bounce, or echo). Technically, this is measured by 'reverberation time', which is the time between the cessation

of a sound source and a measured decay of 60db. Ideally, this should be no longer than 0.4 - 0.6 of a second.

- *High levels of ambient noise* (i.e., the noises consistently present in an empty classroom). These should be no louder than 30-35 dB.

There are two main interrelated strategies for removing acoustical barriers to learning: firstly, increasing 'good' sounds and, secondly, reducing 'bad' sounds.

Increasing good sounds. Many SWSEN benefit from what is referred to as sound-field amplification. Simply, this is done by means of a small high-fidelity wireless public address system located in a single classroom with a microphone for the educator and speakers located around the classroom. This enables the educator's voice to be increased by about 10dB. This method of voice amplification has advantages over hearing aids since the latter magnify both voices and background noise (although they are necessary for learners with major hearing loss). Incidentally, sound-field amplification can benefit teachers, too, by counteracting any voice fatigue and hoarseness to which they may be prone.

Reducing bad sounds. In a classroom, several things can be done to decrease noise levels:

- Use sound-absorbing materials like large cork bulletin boards, carpets under noisy equipment, and felt under chairs to reduce annoying scraping sounds.

- Insulate walls and ceilings and use dividers covered with thick felt or material to absorb noise within and between classrooms. (Note, however, that there is a risk that materials such as felt may gather dust and jeopardise the health of asthmatic learners.)

- Separate noisy and quiet areas. For example, locate the reading corner and the play area at opposite ends of the room.

- Model appropriate voice levels (for example, ask the learners to distinguish between 'inside' and 'outside' voices).

- Encourage learners to speak quietly in group activities and when moving furniture.

- Use music to calm the class (but take care that this does not itself become 'noise' and   forces learners to speak even louder to make themselves heard).

- Keep doors and windows closed, provided there is adequate ventilation.

- Check the noise levels of any heating, ventilation and air conditioning system in your classroom.
- Involve an audiologist and/or a speech and language therapist in working out ways to make classrooms acoustically satisfactory.

15.5   Interactive Effects of Different Features of Classroom Environments

Recent research has highlighted the importance of considering the complex interactions and additive effects among various aspects of indoor environmental quality on student achievement. For example, in a UK study, researchers found the following classroom characteristics related positively to achievement: (a) *light*: e.g., classrooms receive natural light from more than one orientation, and they have high quality and quantity of electric lighting; (b) *choice:* e.g., classrooms have high quality and purpose-designed furniture, fixtures and equipment, including ergonomic tables and chairs; (c) *flexibility*: various zones can allow varied learning activities at the same time, and teachers can easily change the space configuration; (d) connection*:* wide corridors can ease movement, and pathways have clear way-finding features; (e) *complexity*: classrooms are designed with quiet visual environments balanced with a certain level of complexity; and (f) *colour*: warm colours in senior grades' classrooms and bright, cool colours in junior grades' classrooms (Barrett, 2013).

15.6   Summary

1. *Learners who spend time in well-designed, well-maintained classrooms that are comfortable, well lit, reasonably quiet, and properly ventilated with healthy air will learn more efficiently and enjoy their educational experiences.*
2. *Children should receive 2-3 hours per day in daylight conditions.*
3. *What constitutes good design of indoor physical environments for SWSEN is also good design for all learners.*
4. *Recent research has highlighted the importance of considering the complex interactions and additive effects among various aspects of indoor environmental quality on student achievement.*

CHAPTER SIXTEEN

DISABILITIES, CONFLICTS AND DISASTERS[1]

It is an unfortunate fact that in most, if not all, wars and disasters persons with disabilities are the first to die, the first to get diseases and infections, and the last to obtain resources and medicines when they are handed out. In short, the rights and needs of persons with disabilities have been and are being neglected. That this situation must change is mandated in Article 11 of the UN Convention on the Rights of Persons with Disabilities (United Nations, 2008), which requires that States take all necessary measures to ensure the protection and safety of persons with disabilities during situations of armed conflict, humanitarian emergencies, and natural disasters.

In addressing these challenges, a recent book, of which the writer was a co-editor (Mitchell & Karr, 2014), arrived at eight principal conclusions.

16.1   Key principles

First, underpinning all of the chapters was the explicit or implicit claim that persons with disabilities have the same rights as all others in a society to have their needs taken fully into account in disasters and conflicts. This does not imply that they should be treated exactly the same as all other persons, but rather that they should enjoy equal legal rights, while at the same time receiving additional support that takes account of their needs. As one group of writers pointed out, a rights-based approach to disability codifies relationships between rights-holders and duty-bearers, with the former having strengthened opportunities to claim their rights and the latter having the responsibility to respond to such claims and to fulfill those rights (Njelesani et al., 2014).

Second, special attention should be paid to the needs of children with disabilities at times of disasters and conflicts. Children – particularly those with disabilities – are especially vulnerable at times of disasters and conflicts. As noted by one of our writers, a UNICEF report from 2003 indicated that in the previous decade 2 million children died due to armed conflicts and 6 million were severely injured, many of whom became permanently disabled (Marcal, 2003). Even at the best of times, children with disabilities in many developing countries often lack access to

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[1] This chapter is based on Mitchell & Karr (2014).

education, health care and other basic services and are rendered invisible to their communities. Their vulnerabilities are heightened at times of crises, especially in situations of armed conflict, which serve to exacerbate pre-existing negative attitudes towards children with disabilities.

Third, in preparing for and responding to disasters and conflicts requires consideration of management cycles. In dealing with disasters and conflicts, several phases form a cycle. Typically, in the case of disasters, these phases comprise (a) *mitigation* – minimising the potential effects of disasters through, for example, building codes and public education; (b) *preparedness* – planning how to respond through, for example, warning systems and emergency exercises; (c) *response* – minimising the impact of the disaster, for example by providing emergency relief; and (d) *recovery* – returning the community to normal. In all of these phases, the rights and needs of persons with disabilities should be taken into account.

Fourth, action plans to deal with the impact of disasters and conflicts should be designed and implemented at all levels – globally, nationally, regionally and locally. At every phase of the cycle in dealing with disasters and conflicts, a multi-level approach is called for. A case can be made for the establishment of alliances to promote the design and implementation of strategies for local, national, regional and worldwide inclusive disaster risk reduction management. The United States has perhaps the most comprehensive, multi-level structure for dealing with haards, engaging federal, state, local, tribal and territorial governments, the private sector, and non-governmental organisations.

Fifth, persons with disabilities should be mainstreamed in the design and implementation of action plans. In keeping with the principle that persons with disabilities have the same rights as all others in a society, several of our authors emphasised that they should be fully involved in action plans, not just as beneficiaries, but also as full and equal participants in their design and implementation. Such involvement could be at the level of individuals or via disability organisations representing their interests. Thus, it behooves organisations responsible for developing action plans to develop effective strategies for meaningfully involving persons with disabilities and/or their representatives by developing effective participatory methods.

Sixth, action plans should be comprehensive and include consideration of the basic needs of people with disabilities. Universal design should be an overarching principle in planning for and delivering programmes for people with disabilities In brief, this principle requires that planners design all components of programmes so that they are fully accessible to all people, including those with disabilities (Center for Universal Design. 2012). More specifically, action plans should ensure that persons with disabilities have appropriate access to basic requirements such as the following: (a) health services, including medication and physiotherapy; (b) nutrition; (c) water; (d) shelter; (e) sanitation; (f) education, including sex education; (g) security and protection; (h) transport; (i) communication systems available in multiple formats, including ICT; (j) assistive devices; and (k) employment opportunities.

Seventh, it should be recognised that many agencies and organisations play significant roles in providing advocacy and/or services for persons with disabilities at times of crises. A wide range of international agencies and non-governmental organisations advocate and/or provide services for persons with disabilities during disasters and armed conflicts. The important role played by the United Nations, especially through the Convention on the Rights of Persons with Disabilities, must be noted. Other agencies and organisations with a global reach referred to include: the Committee on the Rights of Persons with Disabilities, which is tasked with monitoring the implementation of the foregoing Convention, the United Nations Enable, the World Health Organisation, the United Nations Human Rights Commission, the United Nations High Commission for Refugees, the United Nations Committee on the Rights of the Child, the Women's Refugee Commission, UNICEF the International Organization for Immigration, the World Bank, Disabled People's International, Human Rights Watch, the International Federation of Red Cross and Red Crescent Societies, Save the Children, Handicap International, International Disability Alliance, the Sphere Project, Mobility International USA, USAID, and Habitat for Humanity.

Eighth, it is essential to recognise that social networks at the community level play a critical role in dealing with conflicts and disasters. Several writers include an ecological approach to mitigating, preparing for and recovering from disasters and conflicts, taking account of the rights and needs of people with disabilities. As

Aldrich (2013) points out, scholars are increasingly incorporating recognition of the role of social networks and social capital in determining outcomes in disasters.

16.2   Summary

1.   *Article 11 of the UN Convention on the Rights of Persons with Disabilities (United Nations, 2008), which requires that States take all necessary measures to ensure the protection and safety of persons with disabilities during situations of armed conflict, humanitarian emergencies, and natural disasters.*

2.   *Persons with disabilities have the same legal rights as all others in a society to have their needs taken fully into account in disasters and conflicts, while at the same time receiving additional support that takes account of their needs.*

3.   *Special attention should be paid to the needs of children with disabilities at times of disasters and conflicts.*

4.   *In preparing for and responding to disasters and conflicts, consideration should be given to (a) mitigation, (b) preparedness; (c) response, and (d) recovery.*

5.   *Action plans to deal with the impact of disasters and conflicts should be designed and implemented at all levels – globally, nationally, regionally and locally.*

6.   *Persons with disabilities should be mainstreamed in the design and implementation of action plans.*

7.   *Action plans should be comprehensive and include consideration of the basic needs of people with disabilities. Universal design should be an overarching principle in planning for and delivering such programmes.*

8.   *Many agencies and organisations play significant roles in providing advocacy and/or services for persons with disabilities at times of crises.*

9.   *Social networks at the community level play a critical role in dealing with conflicts and disasters.*

CHAPTER SEVENTEEN

NON-INCLUSIVE EDUCATIONAL SETTINGS

Obviously, the reciprocal of inclusive education, which was addressed in Chapter Thirteen, is *non*-inclusive education. Therefore, many of the issues that were traversed in that chapter have relevance for the present one. In particular, the evidence that related to student outcomes in inclusive education was usually compared with outcomes in some form of non-inclusive settings, such as special schools or units.

In this chapter, the focus will be on the following non-inclusive educational approaches: special schools, special classes/units, streaming, setting, within-class ability grouping, and individual instruction, some of which are used in combination.

17.1 The 'Where to Learn' Dilemma

The World Health Organization (WHO/World Bank report, 2011) notes that many learners with more severe disabilities and/or with behavioural difficulties continue to be educated in special schools or in special units/classrooms within mainstream settings. The reasons for this are many and complex, but include teachers' attitudes, values and competence and also the views of parents, many of whom remain in favour of special schools, seeing them as better equipped to meet their children's needs.

A recent literature review by the European Agency for Development in Special Needs Education (2013) noted that researchers variously argue for the maintenance, change or disappearance of special schools:

> Cigman (2007), for example, states that while a radical position of inclusion supports a total dismantling of special schools, a moderate position is in favour of the survival of special schools, especially for those learners with more severe disabilities. Supporters of this position argue that the philosophy and policy of inclusion have outpaced practice (e.g. Hodkinson, 2010), as not all children (or parents) want to attend mainstream schools (Norwich and Kelly, 2004). Many others also argue that mainstream schools are not ready to meet the 'needs' of learners with disabilities (Warnock, 2005; Cigman, 2007; Forbes, 2007). Other researchers (Dyson and Millward, 2000; Slee, 2006; 2011; Gordon and Morton, 2008; McMenamin, 2011) see the presence of special schools as an anomaly of the inclusive education system and argue for them to be totally dismantled. In particular, Slee (2001; 2007; 2011) describes the tenacity of special schools as an example of the great resilience of the special sector, as well as a fundamental threat to the development of inclusion (p.47).

As Shaddock et al. (2009) pointed out, debates about what constitutes an appropriate setting for SWSEN have had a long and turbulent history, dating back at least to the seminal article of Dunn (1968). These debates illustrate what Norwich (2008) referred to as the 'where to learn' dilemma. As indicated in Chapter Thirteen, the value of various placements, from segregation to total inclusion, has been interrogated on ideological, philosophical and empirical grounds. For example, strong supporters of special education (and, by inference, non-inclusive settings), Kauffman & Hallahan (2005) made the following case:

> Since its inception, special education has been conceptualised as special instruction. But those who invented special education recognized that special instruction sometimes requires a special place, simply because no teacher is capable of offering all kinds of instruction in the same place and at the same time and that some students need to be taught things that others don't need. So, as has been recognised all along, the specialized places in which special education sometimes occurs are necessary for special instruction, especially if it is to be done well. There is no magic in any place, either the regular classroom or a special class. Place, by itself, does not represent good special education. Special education is neither good nor bad because of where it is offered. The instruction is what matters and what makes special education (p.63).

17.2   Where are SWSEN Placed?

Firstly, let us consider some of the statistics on special school and special class/unit placements. The OECD (2005) has presented a comprehensive set of data on educational provisions for SWSEN in 31 countries for around 1999-2003. These are shown in Table 12.1. Several points should be mentioned:

a. The data related to different age groups, as the compulsory starting age for school differs across countries.

b. Segregated provisions' referred to special schools and fulltime, or almost fulltime, special classes.

c. he varying percentages of SWSEN (from a low 0.9% in Greece to a high of 15.0% in Iceland) reflected different definitions of such students. For example, in England the 3.2% of SWSEN referred only to students with statements;

another 13.8% were identified less formally as having special educational needs, while Sweden did not gather data for SWSEN who were fully included.

d. he percentages of SWSEN in non-inclusive settings ranged from several countries with less than 1% (Cyprus (0.7%), Greece (0.5%), Iceland (0.9%), Italy (under 0.5%), Norway (0.5%), Portugal (0.5%) and Spain (0.4%)) to several with 4-6% (French –speaking Belgium (4.0%), Dutch-speaking Belgium (4.9%), Czech republic (5.0%) Germany (4.6%), and Switzerland (6.0%)).

e. he likely fluidity of these provisions must be noted. For example, non-inclusive placements in the Netherlands had fallen sharply compared with a few years before the period portrayed in Table 17.1 as a result of changes in legislation (see Chapter Seven, section 7.4.1). Also, there is some evidence that the Swedish figure might have under-represented the later situation of a rising number of SWSEN attending special schools (Emanuelsson et al., 2005).

Table 17.1: Provisions for SWSEN (OECD data)

A	B	C	D	E
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)	822,666	5.0%	4.9%	2000/2001
Cyprus	N/A	5.6%	0.7%	2000/2001
Czech Repub	1,146,607	9.8%	5.0%	2000/2001
Denmark	670,000	11.9%	1.5%	2000/2001
England	9,994,159	3.2%	1.1%	1999/2000
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	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	807,101	6.0%	6.0%	1999/2000
USA	54,603,324	11.5%	3.0%	2003

Key

a. Country

b. Number of compulsory school-aged pupils

c. Percentage of SWSEN

d. Percentage of students in segregated provision

e. Year of reference

As noted by Riddell et al. (2006), countries differed in their placement of SWSEN, according to the three-way classification described in Chapter Four, section 4.1 of the present review. Overall, for reporting countries in another set of OECD data, they observed the following:

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

When one drills down into country statistics, further interesting patterns emerge. For example, in England, there is clear evidence that not only were fewer students being educated in special schools (1.1% in 2003, compared with 1.5% in 1983, according to the Pupil Level Annual Schools Census in 2003), but the population of special schools was undergoing change. More recent data from that country showed a gradual increase in the number and percentages of SWSEN attending special schools as having behavioural, emotional and social difficulties (BESD) and autistic spectrum disorder (ASD), as can be seen in Table 17.2. This table shows that the two categories combined constituted 30.9% of the special school population in 2008, compared with 25.0% in 2005, with the greatest increase being recorded for students with ASD (from 11.1% to 16.0%).

These data reflect the rapid increase in the number of young people receiving a diagnosis of ASD and BESD in all jurisdictions of the UK as documented by Lloyd (2003) and Pirrie et al. (2006).

Table 17.2: Special schools and number and percentage of SWSEN by type of need

Year	Type of need					
	BESD		ASD		BESD/ASD	
	N=	%	N=	%	Total %	
2008	13,240	14.9	14,200	16.0	30.9	
2007	13,160	14.9	12,550	14.2	29.1	
2006	12,740	14.4	11,260	12.7	27.1	
2005	12,470	13.9	9,900	11.1	25.0	

Another example of an analysis of the population of SWSEN in non-inclusive settings is embedded in US data for 1995, which shows the distribution of students by the number of their disabilities. This information is outlined in Table 17.3.

Table 17.3: Number and percentage of students receiving special education and related services in various educational environments, by number of disabilities in the US

Number of disabilities	Regular classroom setting	Resource room	Separate class	More than one of these locations	Total
One	393,705	510,734	289,744	212,235	1,406,418
Percent	28.0	36.3	20.6	15.1	100.0
Two or more	147,774	118,030	188,118	207,602	661,524
Percent	22.3	17.8	28.4	31.4	99.9
Total	541,479	628,764	477,862	419,837	2,067,942
Percent	26.2	30.4	23.1	20.3	100.0

Source: 22nd Annual Report to Congress (U.S. Department of Education, 2000), which acknowledges the 1995 National Health Interview Survey

Note: Special day schools, special residential schools, homes, hospitals or institutions, were excluded due to small sample sizes.

The Department of Education drew attention to the following (a) a larger percentage of children with co-occurring disabilities than of students with one disability received their educational services in a separate classroom located in a regular school (for either all or part of the day) (b) students with only one disability received their educational services primarily in a resource room located in a regular school, and (c) compared to students with only one disability, a greater proportion of

those with two or more co-occurring disabilities received services in more than one of the specified locations (31% compared to 15%).

Another interesting pattern emerged in an analysis of the influence of population density on the percentage of students being educated in non-inclusive settings, carried out in Europe by Meijer et al. (2003). They found a high correlation between these two variables (0.60, N=15 countries). In other words, 'about 36% of the variance of the percentage of segregated children is explained by population density' (p.80). The authors explained this finding in terms of the disadvantages of special school placements in countries with low population density: greater travel distances, negative social consequences as children are taken out of their social environments, and the higher costs incurred.

17.3   Special Classes and Special Units [1]

Provisions for students with complex needs (i.e., severe behaviour needs or conduct difficulties) will suffice to illustrate special education alternatives to mainstream settings. Thus, if a student with complex needs cannot be managed in a regular class, next on the continuum of programmes is the special unit (roughly equivalent to 'pupil referral units' in England) or a special class within the school, and then a special day school. In these settings, the student may spend a short or long time before being considered for re-integration into the regular class, or being placed in a residential school (see 17.4).

In England and Wales, as part of their duty under section 19 of the Education Act 1996, local authorities set up and run pupil referral units (PRUs) to provide education for children of compulsory school age who cannot attend school, or who have been excluded from school (Department for Education and Skills, 2005b). Since September 2010, PRUs are legally referred to as 'Short Stay Schools' (in England, but not Wales), but in this review the term PRU will be retained. As of 2012, some 14,000 children were enrolled in PRUs.

Local authorities operate different models of PRU provision, developed to meet local circumstances and in line with local policies. Models of provision include:

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[1] This section formed part of a review into provisions for children with complex needs (see Mitchell, 2012). Apart from most of the material on pupil referral units, this section is summarised from Cooper & Jacobs (2011). For a detailed review of pupil referral units, see Colley (2011).

provision on a single site, provision on several sites under a single management structure, Peripatetic Pupil Referral Services (particularly in rural areas), and e-learning provision using ICT and web-based resources. PRUs may provide full- or part-time education. Many PRUs work jointly with mainstream schools to support vulnerable pupils and pupils at risk of exclusion; they may do so through out-reach support to individual pupils in their mainstream school by PRU staff or through dual registration of pupils, who may attend a PRU on a part-time or full-time basis. A single management committee may cover two or more PRUs to ensure better co-ordination of education of children out of school. Members of a management committee might include: head teachers from maintained schools within the local authority, local authority officers with knowledge or experience of working with young people with behavioural difficulties, social services representatives with knowledge and responsibility for children's services, representatives from local health services, the teacher in charge of the PRU, Special Educational Needs Co-ordinators, parents of pupils currently or previously attending the PRU, and representatives of voluntary or community organisations.

PRUs cater for a wide range of pupils – those who cannot attend school because of medical problems, teenage mothers and pregnant schoolgirls, pupils who have been assessed as being school phobic, pupils who have been excluded or who are at risk of exclusion. Some PRUs cater for particular kinds of pupils, while others will have a mix of different kinds. For most pupils, the main focus of PRUs is on getting them back into a school.

Many PRUs also work with schools to support vulnerable pupils and those at risk of exclusion. They may do this through outreach support to pupils within the schools, or by dual registration, where a pupil stays on the register of their school but is also registered with, and attends, the PRU.

Evidence. In their recent review, Cooper & Jacobs (2011) noted that special units/classrooms/pupil referral units have 'limited evidence supporting their use' (p.4), though they also point out that the nature and diversity of this range of provision makes it difficult to make meaningful generalisations about their overall effectiveness. Unfortunately, where useful case study evidence exists, this has not been followed up by further larger-scale studies.

According to a recent report by Taylor, the UK Government's Expert Adviser on Behaviour, there is a wide variation in the set up, objectives and ethos of PRUs nationally, but the best share some common characteristics (Taylor, 2012). These include the following:

- They have strong, authoritative leaders who are respected partners of their mainstream colleagues. Their PRUs are seen as a resource locally where the expertise of staff is used to help mainstream schools to improve their practice.

- Good PRUs are able to be responsive when a difficult behaviour problem develops in a school and provide appropriate support. They assess the needs of such students and provide personalised programmes for each one which, when possible, leads to a return to their mainstream school.

- They have the capacity to help pupils with serious emotional difficulties and improve behaviour at the same time as achieving high academic standards.

On the other hand, according to Taylor, some PRUs are of poor quality:

- Once placed there, children rarely get back to mainstream school.

- The curriculum is narrow.

- The teaching is poor and pupils do not achieve academic success.

- Rather than improving behaviour, the atmosphere of the worst PRUs feeds pupils' behaviour problems. Some of the most vulnerable children, with a range of differing needs, end up in bleak one-size-fits-all provision.

- Schools described difficulties working with PRUs, such as a labyrinthine referral process that takes months to get children a place, a poor relationship between them and other schools and a service that seemed to be operating in the interests of the staff rather than schools or children.

An Ofsted (2007) review of PRUs commenced with the following statement:

Although there is a wide variety of PRUs, they face similar barriers in providing children and young people with a good education. These may include inadequate accommodation, pupils of different ages with diverse needs arriving in an unplanned way, limited numbers of specialist staff to provide a broad curriculum and difficulties reintegrating pupils into mainstream schools. The success of PRUs depends on their responses to these challenges and the support they receive from their local authority (LA). In 2005/06 over half the

PRUs inspected nationally were good or outstanding, but one in eight was inadequate. (p.4)

The review then went on to focus on 28 PRUs concerned with the age group 11-18 whose overall effectiveness had been judged to be good or outstanding in the previous two years. These PRUs had much in common, including the following features:

- Shared purpose and direction: staff conveyed to pupils that they were offering a 'second chance' or a 'fresh start'; they had high expectations, set challenging tasks for them and anticipated what support they would need.

- A well-designed curriculum that allowed pupils to improve basic skills where necessary and re-engage them in learning through interesting experiences.

- Emphasis on personal and social development: it was integrated into all lessons and activities, as well as being taught well at discrete times.

- Well-managed provision for pupils with behavioural, emotional, social and medical difficulties included appropriate plans for the next steps for each pupil, clearly defined timescales and systems to put planning into action. All these enabled the timely and systematic reintegration of pupils into mainstream schooling.

In a more recent review, Ofsted (2011) examined the use of nurture groups and related provision in a small sample of 29 infant and primary schools. The following were the key findings and recommendations:

- When the nurture groups were working well, they made a considerable difference to the behaviour and the social skills of the pupils who attended them. Through intensive, well-structured teaching and support, pupils learnt to manage their own behaviour, to build positive relationships with adults and with other pupils and to develop strategies to help them cope with their emotions.

- At its best, the nurture group was part of a genuinely 'nurturing' school, where all members were valued, but where this value was imbued with a rigorous drive for pupils to achieve their very best.

- The schools that were the most effective at 'nurturing' had a clearly defined, positive but firm approach to the way in which they spoke to pupils, gave them clear boundaries, praised them for their efforts and achievements,

ensured that they made academic progress, and worked with their parents. They saw each pupil as an individual and planned and implemented additional support accordingly.

- The nurture groups gave parents practical support, including strategies that they could use at home with their children. Parents felt more confident about being able to help their children and they valued the nurture groups highly.

- All the schools visited judged the success of the group in terms of the pupils' successful reintegration to their main class. However, ensuring that the pupils made progress in their academic learning often did not have as high a profile as the development of their social, emotional and behavioural skills. Almost all the schools saw this as part of their purpose to some extent, but its prominence varied.

- The effectiveness with which literacy, numeracy and other academic skills were taught varied. Occasionally, it was seen as acceptable to put academic learning 'on hold' while the pupils were in the nurture group. This led to them falling further behind.

- Daily informal communication between the class teacher and the nurture group staff was common and helped staff to know how well the nurture group pupils were doing on a daily basis. However, communication about pupils' academic progress was not as strong as about their social and behavioural progress.

- Where pupils in the nurture group were receiving a coherent and balanced curriculum, leaders, class teachers and nurture group staff had agreed where and by whom each element of the curriculum would be taught. Where curriculum planning was not clear, gaps emerged in the pupils' learning but were not always noticed.

- All the nurture group pupils in the schools surveyed retained at least some contact with their mainstream classes and with the rest of the school. The extent to which a sense of 'belonging' was retained depended on the attitudes of the school and the systems for communication. If these elements were positive, the pupils remained a clear and visible part of their mainstream class even when they attended the nurture group for most of the time.

- The pupils' transition back to their mainstream class full time was planned particularly carefully in 14 of the schools. In the best practice, it was given a high priority and planned well in advance and included targeted support back in the class.

- Thirteen schools tracked the academic and the social, emotional and behavioural progress of the nurture group pupils thoroughly. These schools were able to demonstrate clear evidence about the progress made in each of these areas and knew where and why progress had not been made.

- The schools' evidence indicated that over a third of the 50 case study pupils who were attending the nurture groups at the time of the survey were making substantial progress with behavioural, social and emotional skills. Nearly all were making at least some progress.

- Academic progress was not as strong, though it was very good for some. For nine pupils, their progress in reading, writing and mathematics had accelerated since joining the nurture group. Twenty pupils had started to make at least some progress in reading, writing, and mathematics since joining the nurture group, having previously made none or very little.

- No school had evaluated thoroughly the progress of the former nurture group pupils as a separate cohort in order to analyse the long-term impact of this intensive intervention. However, all could provide case studies that showed considerable success.

- Almost all the schools recognised that the nurture group could not be the complete solution to the support that the pupils needed. They put in place a range of targeted support for these and other pupils, particularly when pupils left the group.

- The Department for Education and local authorities should:

- take into account the substantial value of well-led and well-taught nurture groups when considering policies and guidance on early intervention and targeted support for pupils with behavioural, emotional and social needs.

- Schools should:

- ensure that all intensive interventions enable pupils to make academic as well as social and emotional progress;

- ensure that communication between senior leaders, nurture group staff and class teachers is frequent and systematic, and concentrates on the academic as well as the social progress that pupils are making;

- systematically track and evaluate the social, emotional and academic progress of the pupils after they leave the nurture group or other intensive intervention in order to ascertain long-term impact and establish whether other support is needed (pp.6-8).

In a small-scale study of 92 children in north-west England aged 13 to 16 in pupil referral units, Solomon & Rogers (2001) gave them questionnaires covering their perceptions of this placement. Contrary to the expectation that placement in these units would allow children access to a therapeutic environment where they could develop more effective coping strategies and contrary to the expectation that these students found difficulties in accessing the full curriculum, the students did not reject the curriculum nor had they found coping strategies within the units. The researchers concluded: interventions designed to assist disaffected pupils need to be located within the context of regular schooling itself and that effective interventions need to recognise the limits of a counselling-type environment and seek to relocate referred pupils into mainstream.

In a study of a special unit in a Cypriot school, Angelides & Michailidou (2007) noted that educating students with special needs in such a unit can lead to marginalisation. Interviewing 14 of these children, and comparing their social lives to those of a matched group of 14 educated in regular classrooms, the authors discovered that the former had little opportunity to mix with their peers and their school lives were dominated by children and adults involved in special education. They identified as important friends those who were in their home network, whereas those typically-educated children identified as their important friends others within their class or school.

In two US studies comparing children with emotional and behavioural difficulties educated in self-contained classrooms with those educated in specialist separate schools, Lane et al. (2005) discovered that little distinguished such children in special schools from those educated within a self-contained classroom in a mainstream schools. Academic improvement in either setting was limited, as was progress in social or behavioural domains. The only observed difference was that

those in special schools referred to as having more 'severe' difficulties were more likely to have externalising disorders than internalising disorders. Although the study aimed to question why some children were referred for education in more restrictive settings (special schools) the results must point additionally to there being little social and emotional advantage in being placed in a segregated classroom within a mainstream school.

In Sweden, children showing signs of significant disturbance or thought to be at risk are withdrawn to spend time in a day special school. Here their emotional and mental health is monitored in small classes where they receive some social skills training. Svedin & Wadsby (2000) conducted a follow-up study of 104 children, most with disruptive behaviour, who were referred to Swedish day special schools at some time in their school career. Of these, 88% had returned to mainstream schooling after an average placement of two years. There were significant improvements in their mental health and 60% were symptom-free or had only mild symptoms. Their academic progress remained slow, however, and even after placement they were considered more disturbed than typical children. Most (53%) had been diagnosed with oppositional defiant disorder and 21% with conduct disorder. It was this group who still displayed the most obvious problem behaviours.Special schools are normally considered to be schools that cater exclusively for SWSEN with severe learning difficulties, physical disabilities, sensory disabilities, behavioural problems or multiple disabilities. Students attending such schools generally do not attend any classes in mainstream schools. They are usually specifically designed, staffed and resourced to provide the appropriate special education and related services for SWSEN. Qualifiers to all of the foregoing were used deliberately for, as we shall see, the character of special schools is undergoing considerable changes in many parts of the world. Special classes/units (sometimes referred to as 'self-contained classrooms' in the US) are normally considered to be separate rooms dedicated solely to the education of SWSEN within a larger school. Such classrooms are typically staffed by specially trained teachers who provide individualised or group instruction to students with a particular disability.

17.4   Residential Schools

Residential schools for students with SEBD [social, emotional, and behavioural difficulties] have been described as the 'dinosaurs' of special educational

provision. … Unlike dinosaurs, however, these residential schools have shown remarkable resilience in the face of intense efforts to kill them off ... (Cooper & Jacobs, 2011, p.117).

Despite the worldwide trend towards inclusive education, residential schools are still widely utilised to provide full-time care and education for children with complex needs/SEBD. These are usually children who pose the most severe challenges to their schools and families.

Evidence. After his extensive search for relevant New Zealand research, Church identified no controlled evaluations of the effectiveness of residential school programmes

With regard to international research (mainly conducted in the US), Church quotes from Curry (1991), who pointed out that research into the outcomes of residential treatment lags behind research in related areas, and suffers from numerous methodological shortcomings. Notwithstanding these problems, Curry noted that many early studies found that the amount of improvement made by students in residential schools did not predict their level of functioning in the years following discharge.

Church (2003) located one meta-analysis of the effects of residential treatment, carried out by Garrett (1985). This was a review of 126 studies of the effects of residential treatments for delinquents. Of these studies, 84 involved some kind of control group, 34 included some kind of measure of subsequent offending, and 19 made use of a 'rigorous design'. Taken together, the residential programmes evaluated by Garrett had an average effect size on subsequent offending of only about 0.1, which means that, on average, they were probably producing reductions in offending over the follow-up period of about 10 percent. Garrett also found that the studies with control groups had the smallest effect sizes.

In their review of research into residential schools, Cooper & Jacobs (2011) comment that although researchers have neglected them, particularly in recent years, 'the limited research evidence that does exist offers important food for thought' (p.117). They note that such evidence as does exist, points to the residential experience being characterised, at its best, by its restorative qualities. In a qualitative study of two residential special schools for boys aged nine to 17 with emotional and behavioural difficulties (n=77), Cooper (1989, 1993) found three consistent themes in

the students' accounts of their experience. The first was respite from negative influences and unsatisfactory relationships in their home settings and former schools and the sense of safety and emotional security afforded by the residential setting. Second was their experience of positive, warm and supportive relationships shared with the residential staff. Third was their experience of resignification where, as a result of these positive experiences and relationships the students could forge more positive self identities, replacing the negative and deviant identities they often held on entry to the schools.

In a study of children (n=67) attending four contrasting residential schools, Grimshaw & Berridge (1994), found the children and their families reflected the findings of Cooper's study. Families and students also spoke positively about the effect residential placement had on students' emotional and social development and, as a result, the quality of family relationships.

In a recent study in Germany, Harriss et al. (2008) interviewed students aged eight to 12 (n=13) who had attended a residential school for children with SEBD for an average of three years. The students attributed the following positive effects to their residential experience:

- an improved ability to trust others,
- improved ability to cope with 'difficult feelings',
- improved classroom engagement and ability to remain in classrooms during lessons, and
- improved behaviour and relationships at home.

Parents and residential staff echoed these findings, although teachers observed positive developments in pupils' academic engagement and progress while parents expressed concerns that it was often unsatisfactory

However, as Cooper & Jacobs (2011) point out, it is also the case that the few published follow-up studies that exist tend to reveal poor social and personal outcomes. For example, Farrell & Polat (2003) tracked down only 26 out of 172 former pupils from a residential SEBD school in England. They were aged 17 to 25 and had spent on average four years and three months in the school. They were all under-qualified educationally and only 13 had full time, largely menial jobs. They expressed concerns about their lack of financial security and tended to have negative expectations for the future. In a similar study in New Zealand by Hornby & Witte

(2008) a group of former residential SEBD school students (n=29) who had attended the school when aged ten to 14 years prior to the study, were interviewed. Outcomes here were worse than those in the UK study. Only nine interviewees had full-time work, mostly earning only marginally above the statutory minimum wage. Four ex-pupils were in prison. The researchers assessed the ex-students' 'community adjustment' on the basis of information about their interpersonal relationships, living conditions and engagement in community activities, and found comparatively low levels of performance in these areas.

In conclusion, these disappointing life outcomes contrast sharply with conclusions drawn from studies of the processes and experiences associated with residential placement. To Cooper & Jacobs (2011), this suggests that 'the positive achievements of these placements can be undermined when continuity in support and care for individuals after they leave residential provision is absent' (p.119). This draws attention to Pfeiffer & Strzelecki's (1990) point that what seems to affect long-term outcomes is the level of therapeutic support available to the students following discharge from residential schools.

17.5   New Roles for Special Schools

In their recent review of special education in the ACT, Shaddock et al. (2009) noted that special schools accounted for 0.9% of students in public schools or 0.5% of the total government and non-government enrolments. They went on to propose new roles for some special schools, and different models for meeting the needs of students who currently attend them. Their rationale was to '(a) capitalise on the expertise and resources in these facilities; (b) extend the schools' connections with their communities and surrounding schools; (c) reduce travel for students with disabilities; and (d) give students the opportunity to receive an appropriate education (including school friendship opportunities) in their own neighbourhood' (p.17).

Shaddock et al. presented quite a lengthy review of possible new roles for special schools, making the following points:

- In the UK, Warnock (2005) encouraged special schools to become 'specialist schools', offering services to a broader section of the school population.
- The NSW Public Education Inquiry (2002) encouraged special schools to form linkages with regular schools, suggesting that teachers in special schools could accept roles as co-ordinators to assist regular schools with inclusion,

sharing resources and their expertise with teachers and assistants and providing outreach services.

- Innovative practices documented by Farrell (2008) and by Gibb (2007) included suggestions that 'exemplary special schools' could share best practice in:

a. teaching multi-age and diverse classes,

b. mentoring and working collaboratively with regular schools,

c. training teachers and assistants how to differentiate work,

d. teaching specific skills to students individually and in groups,

e. developing individual learning and behavioural programmes,

f. providing outreach services to support the integration, transition or the enrolment of students with disabilities through information on the student or the impact of the disability on the student's capacity to learn,

g. developing individual programmes for students,

h. assessing students for assistive technology,

i. screening the speech and language of students,

j. establishing new special units in regular schools,

k. organising parent information sessions, IEP meetings and visits from professionals to support their mainstream colleagues,

l. offering specialist college-level vocational courses on car repairs, hospitality, building, sport and gardening to students and adults after school hours

m. offering short-term placements to students to develop an effective behaviour management programme, with ongoing support when the student returns to the regular school.

In a similar vein, an earlier report from the European Agency for Development in Special Needs Education (2003) noted a trend in European countries in which special schools and institutes were being transformed into resource centres, with such functions as (a) training teachers and other professionals, (b) developing and disseminating materials and methods (c) supporting mainstream schools and parents, (d) providing short term or part-time help for individual students, and (e) supporting students to enter the labour market. A more recent European Agency review (2013) expanded on the notion of a new role for special schools, noting the work of Meijer

(2010) who has indicated that the transformation of special schools into resource centres is a common trend in Europe.

In England, the 1997 Green Paper, *Excellence for All Children*, signalled the government's commitment to inclusive education and the need to rethink the role of special schools within that context. The subsequent document, *Every Child Matters* (Department for Education and Skills, 2003) envisaged special schools as 'providing education for children with the most severe/and complex needs and sharing their specialist skills and knowledge to support inclusion in mainstream schools' (p.26). They would pursue the latter role through regional centres of expertise to be developed in association with local authority support services. This could be achieved by setting up 'federation, cluster and twinning arrangements with their mainstream counterparts' (p.35). According to Farrell (2008), a schools' building programme scheduled for 2016-2021 will enable secondary schools to have specialist facilities and schools contained within or adjacent to them, which will facilitate relationships between special and regular schools. Already, educational authorities have established a specialist schools programme involving more than 50 special schools. Each school specialises in one area: cognition and learning; communication and interaction; physical and sensory; or behavioural, emotional and social difficulties and has been allocated the necessary time, funding and resources to share their expertise and resources with other schools, agencies, services and the community (Farrell, 2008). However, with the recent change of government in the UK, it will be interesting to see how special schools fare in the future. Some indication of what might occur can be found in a recent Conservative Party commissioned report (Balchin, 2007), which included the comment that 'The saddest and most serious result of the present Government's Inclusion policy has been the closure in the last decade of special schools and the concomitant destruction of special school places' (Chapter Six). The report went on to 'demand not just a moratorium on the closure of special schools, but also an active exploration of how we might recreate the number of places that have been destroyed' (ibid.).

In Sweden, too, special schools are being transformed. In 2001, all special schools, except for those providing sign language education, were re-designated as special needs resource centres. These were being developed to support inclusion in mainstream classes. A specialist teacher working as a member of the mainstream

school staff mainly provides support. Municipalities are responsible for ensuring that necessary expertise is available and may request support from the Swedish Institute for Special Needs Education (European Association for Development in Special Needs Education, 2003).

When it emerged from the apartheid era, South Africa was determined to create special needs education as a non-racial and integrated component of its education system. In a 2001 White Paper (Department of Education, 2001, 1:14), several findings of commissions on special needs education were reported. These included: policies aimed, *inter alia*, at bringing about qualitative improvements in special schools and their phased conversion to resource centres and the establishment of district-based support teams (Department of Education, 2001).

17.6   Research into Non-Inclusive Settings

As mentioned in the introduction to this chapter, the evidence that related to student outcomes in inclusive education was usually compared with outcomes in some form of non-inclusive settings, such as special schools or units. This won't be repeated here, apart from reiterating the conclusion that 'the evidence for inclusive education is mixed but generally positive, the majority of studies reporting either positive effects or no differences for inclusion, compared with more segregated provisions'.

Even so, some writers continue to argue for special units and classes for students with particular disabilities, for example, students with learning disabilities, those with ASD and students with profound sensory impairment. Some research support can be found for this case in Swanson & Hoskyn's (1998) report on 180 interventions with students with learning disabilities that found a slight benefit for some students in 'pull-out programs'. However, the researchers explained the benefits in terms of the quality of the instruction rather than where it was provided.

Shaddock et al. (2009) have summarised other arguments in favour of non-inclusive settings. Thus, they drew attention to writers who argue that regular classrooms may not be set up to assist students with ASD, many of whom need specialised curricula and teaching approaches (Mesibov & Shea, 1996; Sainsbury 2000). They also noted that despite the lack of evidence for the beneficial effects of non-inclusive placements on learning, many Australian parents continue to want more special units in primary and secondary schools, not fewer (Nitschke & McColl, 2001)

and that reviews have shown that parents and teachers strongly support a continuum of services (McRae, 1996; NSW Public Education Inquiry, 2002; Commonwealth of Australia, 2002; Nitschke & McColl, 2001). Again according to Shadock et al., parents want the option to move their child to a special education setting if the regular class proves to be problematic, and the inclusion of some students has certainly proved to be problematic for some sectors (Department of Education and Training Western Australia, 2001). Parents and teachers have reported bullying, peer rejection, inappropriate curricula, failure/inability to differentiate, lack of teacher time, inadequate teacher training, limited funding and resources, students with disabilities being taught by assistants - especially in secondary schools (Commonwealth of Australia, 2002). Conversely, some parents speak in appreciation of special schools, citing such advantages as positive expectations, ease of administering medicines, fully accessible physical environments, better behaviour management, and access to specialists (Department for Education and Skills, 2003). As Warnock (2005) pointed out, too, students with disabilities may be excluded socially and academically in a regular school and so special schools may be the salvation for many students. Indeed she went so far as to describe inclusion as 'possibly the most disastrous legacy of the 1978 Report' (p.20), claiming that 'There is increasing evidence that the ideal of inclusion, if this means that all but those with the most severe disabilities will be in mainstream schools, is not working' (p.32). And, finally, Shaddock et al. noted that another rationale for the continued existence of special schools or classes may be, as suggested by Sorrells et al. (2004), that separate classes for 'difficult to teach' children may function as a safety valve for *schools* rather than as a preferred place of learning for *students*. These authors further suggested that specialised programmes may simply be part of the repertoire that public schools have for dealing with problems.

Thus, one has to look beyond the empirical evidence of educational efficacy to other more complex motivations for justifying the retention of non-inclusive educational settings.

17.7   Ability Grouping

There are two aspects to placing learners in ability groups: (a) ability grouping between classes, sometimes referred to as 'tracking' or 'streaming' or 'setting', and (b) ability grouping *within* classes. The relevance of such grouping for SWSEN is that

they are highly likely to be placed in 'lower streams or groups, thus constituting a form of de facto segregation.

According to Benn & Chitty (1996), most secondary schools in the UK employ some form of ability grouping, usually setting, for at least some subjects, while in the US, tracking in various forms has been among the predominant organising practices in public schools for the last century (Rubin, 2008).

In a recent review, Duckworth et al. (2009) concluded that 'much of the available evidence suggests that the effects of ability-grouping on pupil attainment is limited and no firm conclusions can be drawn from its use' (p.30). This conclusion reflects the results of a meta-analysis carried out by Lipsey & Wilson (1993), who reported on the impact on learners' achievement of within-class ability grouping and between-class ability grouping. Their results showed a negligible overall effect size of less than 0.10, with a range of -0.03 to 0.22. A similar result was reported by Hattie (2009), whose meta-analysis yielded an effect size of 0.21 for ability grouping's impact on student achievement. In other words, these two reviews showed that ability grouping had little or no significant impact on student achievement. Unfortunately, in neither of these reviews were separate results reported for SWSEN.

A recent Dutch review of the literature, however, did differentiate between high- and low-achieving learners (Houtveen & Van de Grift, 2001), It concluded that although the mean results of studies showed higher achievement in ability groups than in mixed-ability groups, this was mainly due to the fact that high-achieving students benefitted more than low-achieving students. The authors cited several studies where low-achieving learners performed more poorly in between-class ability groups than in mixed-ability groups (e.g., Gamoran, 1992; Hallam & Touttounji, 1996).

There is evidence, too, that ability-grouping practices may widen gaps in achievement, with students in high-ability streams doing better than in mixed-ability groups, while placements within low-ability groups has a negative impact on student attitudes towards school and their motivation and achievement (Duckworth et al. 2009; Feinstein & Symons, 1999, Robertson & Symons, 2003). Also of relevance is an early UK study by Fogelman et al. (1978), which found that in comprehensive schools with mixed ability grouping practices, a higher proportion of lower attaining students were entered for national examinations.

Ability grouping is not an all or nothing idea, for it is possible to have ability groups for some subjects and mixed ability groups for others. This arrangement is sometimes referred to as 'setting'.

Another drawback of ability grouping, as indicated by Duckworth et al. (2007), is that although the importance of students being able to move sets (in the UK) has been stressed, in practice there is very little movement, even when teachers become aware that students are wrongly allocated. Another interesting finding reported by Duckworth et al. was that among secondary school students studying mathematics in ability-grouped sets, 83% either wanted to return to mixed ability sets or to change their set. Their own research with over 8,000 students in 45 secondary schools also showed that a high proportion of them were unhappy with their set or class placement. For example, in mathematics, where there was the highest level of ability grouping, 38% were unhappy with their set or class placement; unsurprisingly, more students in the bottom set (62%) wished to change their set. Significantly, their reasons for wanting to change were more related to learning than status. For many of them they felt there was a mismatch between the work set and what they perceived was appropriate.

A UK study investigated the effects of setting in English, mathematics and science on the academic self-concepts of secondary school learners (Ireson et al., 2001). The results showed that students' self-concepts were higher in schools with moderate levels of setting. It was also found that the degree of setting in mathematics and science had no effect on academic self-concepts, but setting in English tended to lower the self-concepts of the higher attaining learners and raise the self-concepts of lower attaining learners.

In summarising their interpretation of the research, Houtveen & Van de Grift (2001), put forward a range of arguments as to why ability grouping is detrimental to low-achieving learners:

- Being assigned to low-ability groups communicates low expectations to students, which might be self-fulfilling.
- Because ability groups often parallel social class and ethnic groupings, they may increase divisions along class and ethnic lines.
- Between-class ability grouping reduces students' opportunities to move between groups.

- Low-achieving students tend to receive less instruction when placed in ability groups than when placed in mixed ability groups.
- Ability groups composed of low-achieving students do not provide a stimulating learning environment and lack positive role models.

In a similar vein, MacIver et al. (1995) pointed out that in US research there is evidence that 'low-track' classes are much more likely to receive course content that focuses on below-grade level knowledge and skills than high-track classes.

In reporting the results of two meta-analyses that examined the impact of ability grouping and mixed ability grouping on student learning at the elementary and secondary school levels, Slavin (1996) drew the following conclusions:

- use mixed ability groups for most content areas;
- encourage learners' identification with mixed ability groups in order to promote acceptance of diversity; and
- use ability-grouping only when it will increase the efficacy of instruction or provide more time for instruction on a specific skill.

Due to the disadvantages of streaming (or tracking) outlined above, many schools in the US are implementing what is referred to as 'detracking', which involves students being deliberately positioned into classes of mixed ability (Rubin, 2008; Argys et al., 1998).

Finally, the inconsequential impact of separate settings on the educational outcomes of most students, together with the negative effects on SWSEN, have refocused researchers' attention on the variables that *do* make a difference, many of which are summarised in Chapter Ten. Once again, as Shaddock et al. (2009) emphasised, 'the research refocuses attention on one critical variable – *how teachers teach in their own classrooms'* (p.86, emphasis in original).

17.8   Individual Instruction

As noted by Shaddock et al. (2009), a research synthesis by the Best Evidence Encyclopaedia (BEE) of approaches for helping struggling readers found that classroom instructional approaches produced effect sizes of over 0.5, while one-to-one tutoring by teachers, paraprofessionals and by volunteers produced effect sizes of 0.38, 0.24 and 0.16, respectively. Similarly, Hattie (2009) concluded that, 'The evidence supporting individualised instruction…is not so supportive' (p.198). These finding seem counter intuitive: surely individual instruction should be better!

Obviously, the social context of the classroom is an important contributor to learning and the need for resource-intensive one-to-one instruction should be reconsidered (Shaddock et al., 2009).

17.9   A Final Word

After their thorough review of non-inclusive educational settings, Shaddock et al. 2009) arrived at a conclusion that is supported by the present writer:

> Leading practice does not strongly support the further development of separate placements for students with a disability, in general. As the logic supporting separate provision – preparing students to take their place in society by educating them separately - is somewhat elusive, and as separate placements are not strongly supported by empirical research, the case for such placements should always be the one to be argued (p.87).

Ultimately, to quote Shaddock et al. (2009) again:

> …the development and continuation of such [separate] programs should be based on the extent to which they improve student learning outcomes in ways valued by the students, parents and carers, and teachers. Data and evidence, not conviction and ideology, are the key considerations (p.16).

The same criteria should, of course, apply to inclusive educational programmes, indeed to all teaching strategies, as argued throughout this review.

17.10   Summary

1. *The evidence related to student outcomes in inclusive education is usually compared with outcomes in some form of non-inclusive settings.*

2. *Non-inclusive educational settings range from special schools, through special classes/units and various forms of ability grouping, to individual instruction.*

3. *The 'where to learn debate' has been interrogated on ideological, philosophical and empirical grounds.*

4. *According to OECD data, the percentages of SWSEN in non-inclusive settings range from several countries with less than 1% to several with 4-6%.*

5. *There is evidence that the population of special schools is undergoing change. For example, recent data from England shows a gradual increase in the number and percentages of SWSEN attending special schools as having behavioural, emotional and social difficulties and autistic spectrum disorders.*

6. *Many countries are developing new roles for special schools by converting them into resource centres with a range of functions replacing direct, full-time teaching of SWSEN.*

7. *Paradoxically, individual instruction has a low impact on student achievement, suggesting that the social context of the classroom is an important contributor to learning.*

8. *Special units or special classes yield mixed results, with some evidence from Sweden showing day special schools improved students' mental health, but other research indicating special class placements can lead to marginalisation and not to the learning of coping strategies. In England and Wales, pupil referral units vary in quality but the best of them have such features in common as strong, authoritative leaders; responsiveness to behaviour problems that develop in schools; capacity to help students with emotional and behavioural difficulties while at the same time helping them academically; a shared purpose and direction; and a well-designed curriculum.*

9. *Residential schools have been little researched. Limited evidence points to very small effects on behaviour after the students leave residential facilities. On the positive side, some studies point to residential schools having restorative value, offering respite from negative influences, and providing opportunities for resignification. Follow-up studies are quite discouraging.*

10. *Despite the lack of evidence for the beneficial effects of non-inclusive placements on learning, many parents and teachers strongly support a continuum of services that includes special schools and units.*

11. *Research into ability grouping shows that, overall, it has little or no significant impact on student achievement, although high-achieving students appear to benefit more than low-achieving students, who suffer from disadvantages in being placed in low ability groups.*

12. *A fitting conclusion would be that the continuation of non-inclusive educational settings should be based on the extent to which they improve student learning outcomes in ways valued by the students, parents, and teachers. Data and evidence, not conviction and ideology, should be the key considerations.*

CHAPTER EIGHTEEN

TEACHER EDUCATION [1]

Many of the topics in this review have implications for the design and delivery of teacher education programmes so as to take account of the challenges of educating SWSEN. In this chapter, after outlining some of the main issues in teacher education, a series of country descriptions will be provided, which will be followed by a proposed values, knowledge and skills sets for educators working in inclusive settings with learners with diverse educational needs.

18.1 Issues in Teacher Education

Those responsible for the design and implementation of training programmes for professionals involved in the education of SWSEN have to give consideration to a range of factors, chief of which are the following:

- *The nature of initial teacher education (ITE) for general education teachers and special education teachers*. Issues here include: (a) should there be categorical or a non-categorical programmes for teachers of SWSEN? (b) what relationship should there be between ITE programmes for special education teachers and general education teachers? (c) should special education teachers be trained as general education teachers before being trained as special education teachers? (d) what should be the content of such training courses? (e) who should set expectations for such training?

- *Specialist qualifications for professionals working in an advisory or consultancy capacity*. Here consideration has to be given to such issues as (a) what roles are the various professionals expected to perform? (b) what prerequisite professional experience should they have before receiving their training? (c) at what level should such training be pitched? (d) what should be the content of such training courses?

- *The training of paraprofessionals.* Issues here include: (a) what roles are these people expected to perform? (b) what prerequisite qualifications and/or

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[1] Training programmes for SENCOs (in England) and educational psychologists are covered in Chapter Nineteen.

experience should they have? (c) at what level should their training be pitched? (d) who should deliver their training?

- *Professional development for professionals working with SWNEN.* Issues include: (a) should there be a prescribed set of professional development expectations for the various professional groups? (b) who should be responsible for setting such expectations? (c) who should design and deliver such professional development, in what locations?

In the remainder of this chapter, many, but not all, of the above issues will be traversed. Space and time limitations, as well as gaps in available information, preclude a systematic comparison of various countries' approaches to the issues.

18.2   Country Descriptions

This section summarises some of the main features of teacher education programmes in nine countries: Australia, Belgium, Canada, Finland, Greece, Scotland, Sweden, England, and the United States. The latter two will be dealt with in more detail.

Australia. According to Forlin (2006), in her review of inclusive education in Australia, and citing Loreman et al. (2005), teachers have concerns about their perceived inability to cater for the needs of SWSEN when placed in regular classes. In particular, they feel they lack skills in modifying or differentiating the curriculum, providing suitable instruction, or using suitable assessment strategies. According to these authors, many of the four-year ITE courses in Australia included compulsory courses on inclusive education, but most of the post-graduate one- or two-year end-on courses did not. Of the total of 73 ITE courses reviewed, 45.5% included a compulsory element of study on an aspect of special or inclusive education, with a further 12% offering elective units.

Forlin pointed out the difficulties in obtaining consistency in ITE across Australia, with over 400 programmes in 36 universities. While some jurisdictions require registration of teachers (e.g., Queensland and NSW), others do not. In the former case, registration bodies have greater control over the content of training courses, being able to require specific units of study related to diversity. Other states rely on teacher education institutions to make their own decisions about the content of courses.

In the following, brief summaries of two states' provisions will suffice. The source for this material is http://inca.org.uk/australia-initial-special.html#7.5 [1]

In Queensland, qualification as a special education teacher usually requires the completion of a pre-service teacher preparation programme, such as a Bachelor of Education specialising in special educational needs, or a pre-service programme, followed by completion of a postgraduate qualification in learning support, special needs or inclusive education. All ITE programmes in Queensland address issues of inclusivity and diversity of student need. There is only one initial teacher training programme focused exclusively on special educational needs, based at Griffith University. There are, however, a number of ITE programmes that provide a specialisation/major in special needs/inclusive education. In addition, there are a number of postgraduate programmes for established teachers. The Queensland Board of Teacher Registration Professional Standards for pre-service teachers include requirements that graduates will exhibit such as skills (a) creating supportive and intellectually challenging learning environments to engage all learners, (b) drawing upon pedagogical, curriculum and assessment knowledge and skills to engage all learners, and (c) using knowledge about learners, and (d) learning to create meaningful learning opportunities that lead to desired learning outcomes for individuals and groups.

In Victoria, to become a special education teacher it is usually necessary to complete a postgraduate diploma or degree in special education, after completing an initial degree in teaching. The Victorian Department of Education and Training also requires special education graduates to have completed the equivalent of at least 45 days of appropriate practical experience, including a minimum of 30 days of supervised special education school experience and professional practice in a variety of settings. In addition, the Department runs teacher professional development programmes, which are specially designed for practising teachers. The duration of one such professional development course is seven hours per day over three days. The course provides participants with the skills and knowledge to enable them to write and

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[1] This source is INCA, the International Review of Curriculum and Assessment Frameworks: Internet Archives, a website funded by the Qualifications and Curriculum Development Agency in England and managed and updated by the International Information Unit at NFER. It is the primary source of several of the countries' provisions summarised in this chapter.

implement an IEP for students with special needs. Topics covered include: (a) eligibility criteria for the Victorian Disabilities and Impairments Programme's aims and responsibilities, (b) the impact of specific disabilities and impairments on learning, (c) writing long, intermediate and short term goals, (d) prioritising what needs to be taught, (e) assessment and evaluation of student progress, (f) teaching and learning strategies, and (g) developing behaviour management plans.

Belgium. Preparation in ITE in Belgium includes general information and basic knowledge about SWSEN, with some practical training in the final year. 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 (Riddell et al., 2006).

Canada. Since education comes under the jurisdiction of Provincial governments, a description of two provincial arrangements for teacher education relating to special education will be sufficient to give some idea about Canadian arrangements. The source for this material is http://inca.org.uk/canada-initial-special.html37.5.

In British Columbia, to teach in the public school system or in a government agency, two qualifications are usually required. These are an undergraduate degree in education or in one of the social sciences, with a specialisation in working with people who are disabled, and a teaching certificate. ITE focused on special education is provided through a number of post-secondary institutions, such as the University of Victoria, which offers a Bachelor's degree in education with a focus on special education, and UBC, which provides courses in special education within a undergraduate degree in education. The Ministry of Education works with professional organisations to set standards for specialists working in the education system, such as speech language therapists, physiotherapists, occupational therapists, sign language interpreters and orientation and mobility instructors.

In addition, the Special Education Branch of the Ministry of Education has responsibilities to foster the professional development of teachers, administrators, and support staff related to meeting the educational needs of such students. School districts are expected to provide in-service training to ensure that all staff can develop the skills and understanding needed to work in an inclusive environment and that staff

remain current in their knowledge and understanding of special education. The Ministry of Education supports school districts with in-service training through the provision of funds specifically for staff development. Teachers and other professionals are also expected to maintain and develop their knowledge.

In Alberta, special needs teachers generally have a Bachelor of Education degree with a specialisation related to special education. In addition, institutions such as the University of Alberta in Edmonton offer a one-year Diploma in Inclusive Education programme for teachers interested in the area of special educational needs. This programme contains such core subjects as: assessment and instruction of exceptional learners, behavioural management of severely disruptive children, consultation and collaboration in special education, and advanced assessment and instruction of exceptional learners.

Finland. According to Hausstatter & Takala (2008), universities offer a one-year special teacher training programme after a master's degree (usually a Masters in Education) The core of the special education qualification includes consideration of (a) difficulties in learning to read, write and do mathematics, (b) socio-emotional and behavioural challenges, (c) communication challenges, (d) professional cooperation in the design of IEPs, and (e) cooperation with parents. However, inclusion is not prominently represented, but is embedded in many courses.

Greece. According to Riddell et al. (2006), in Greece, there are no central standards or regulations for ITE, each university determining its own programme. However, ITE usually includes some input on SWSEN or learning difficulties and visits to special schools. Five years of teaching experience is needed before teachers can apply to do specialist training in SWSEN. This is a thorough two-year programme and is aimed at primary teachers. Secondary teachers can do a forty-hour course that provides them with general information about SWSEN; some secondary teachers also have a postgraduate degree in SWSEN. The European Agency for Development in Special Needs Education (2001) indicated that there is a shortage of properly trained special needs teachers affecting the support available to mainstream teachers working in inclusive classrooms. Ordinary teachers, it was reported, have great difficulty in implementing the IEP, with the problem being particularly acute in rural areas.

Scotland. As with several of the countries reviewed, he primary source of information here is INCA (http://inca.org.uk/scotland-initial-special.html) In Scotland

it is not possible to train specifically as a special needs teacher during ITE. Specialisation in this area is gained through continuing professional development courses. However, some ITE programmes do offer courses in SWSEN. All teachers working with children with SWSEN must be qualified initially to teach in mainstream primary or secondary schools and registered with the General Teaching Council Scotland as primary or secondary teachers. Further specialist qualifications can be gained following completion of the probationary period, although teachers can be employed in teaching children with special educational needs without these additional qualifications. However, teachers of deaf or partially deaf children in special schools or special classes are required by the Schools (Scotland) Code 195613 to be qualified teachers and to hold a special qualification to teach deaf children. Broadly similar requirements apply to teachers in special schools or special classes working with others, such as children who are blind or are mentally or physically handicapped. There is no mandatory requirement for an appropriate specialist teaching qualification where children are taught in a mainstream setting.

In-service professional development is offered in a variety of ways; nationally through Scottish Executive Education Department seminars, or courses offered by teacher training institutions, education authorities, and locally in consortia of schools or individual educational establishments. (All teachers in Scotland are required to undertake 35 hours of professional development per year, according to the General Teaching Council for Scotland.) Postgraduate courses in SWSEN are available at many faculties of education in Scottish universities. These range from a general Master's degree in Special Educational Needs to more specific specialist courses, such as a Master's degree in speech therapy.

Sweden. According to Riddell et al. (2006), in Sweden the education of SWSEN is a priority area that permeates aspects of ITE programmes. The 2001 reforms of initial teacher training strengthened the position of special education needs within mainstream training. All students receive the equivalent of half a term training in special educational needs and should also be offered the opportunity to study special educational needs as an area of specialisation. However, government policies requiring extensive knowledge of the education of SWSEN have been 'difficult to implement because of an overly full curriculum' (Emanuelsson et al., 2005, p.127). In addition, students can take further specialised options in SWSEN. In-service training

is compulsory for teachers and courses available in SWSEN offer support on working with pupils with particular needs and on classroom strategies for inclusion. Sweden also has also training programmes for *begeleiders* (special needs coordinators).

Norway. In a recent article, Hausstatter & Takala (2008) compared special teacher education in Finland and Norway. They noted that in Norway some 21 university colleges and universities offered some kind of special needs teacher training, with 13 of them offering a masters-level qualification in this area. The major training in special education is at the master's level, but these do not have a common core of content, although perspectives on inclusion are often present.

United Kingdom (England and Wales).[1] As mentioned earlier, developments here will be explored in some detail. Special educational needs teachers are specifically employed to work with SWSEN For example, they may work with students who are physically disabled, sensory impaired (i.e., deaf/blind), have speech and language difficulties such as dyslexia, have a mental disability such as autism, are emotionally vulnerable, have behavioural difficulties, or have a combination of these disabilities. They may also work with gifted and talented individuals.

A key aspect of their work is to identify individual needs and be responsible for creating a safe, stimulating and supportive learning environment that enables students to succeed in their learning, and it may involve the following work activities:

- teaching either individuals or small groups of pupils within or outside the class;
- preparing lessons and resources;
- marking and assessing work;
- developing and adapting conventional teaching methods to meet the individual needs of pupils;
- using special equipment and facilities, such as audio-visual materials and computers, to stimulate interest in learning;
- using specialist skills, such as teaching Braille to pupils with visual impairments or sign language and lip reading to students who have hearing impairments;

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[1] Sources include:

http://ww2.prospects.ac.uk/p/types_of_job/special_education_needs_teacher_job_description.jsp

http://www.tda.gov.uk

- collaborating with the classroom teacher to define appropriate activities for the pupils in relation to the curriculum;

- assessing children who have long or short-term learning difficulties and working with colleagues to identify individual pupils' special needs;

- liaising with other professionals, such as social workers, speech and language therapists, physiotherapists and educational psychologists;

- liaising closely with parents and guardians;

- organising learning outside the classroom in activities such as community visits, school outings or sporting events;

- assisting in severely disabled pupils' personal care/medical needs;

- administration, including updating and maintaining records on pupils' progress;

- attending statutory annual reviews, or other related meetings such as Looked After Child (LAC) reviews, regarding students with an SEN, which may involve reviewing statements of special educational needs;

- receiving in-service training;

- behaviour management.

To become a special educational needs teacher in England and Wales, Qualified Teacher Status (QTS) is required. There is a one-year statutory induction for all newly qualified teachers, which includes those who start teaching in special educational needs as their first position after qualifying.

From 2002, those awarded QTS must demonstrate that they can: (a) understand their responsibilities under the Special Educational Needs Code of Practice, and know how to seek advice from specialists on less common types of special educational needs, (b) differentiate their teaching to meet the needs of pupils, including those with special educational needs, and (c) identify and support pupils who experience behavioural, emotional and social difficulties. Standards for the Induction Support Programme require that those awarded qualified teacher status must: (a) understand the duties and responsibilities schools have under the Disability Discrimination Act 1995 to prevent discrimination against disabled pupils, (b) spend time with the school's Special Educational Needs Coordinator (SENCO)[1] to focus on

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[1] See Chapter Nineteen for further information about SENCOs.

specific and general special educational needs matters, and (c) demonstrate that they plan effectively to meet the needs of pupils in their classes with special educational needs, with or without statements.

There are additional mandatory requirements for special educational needs teachers who specialise in teaching pupils with visual, hearing or multi-sensory impairment. These qualifications are available only from specific approved institutions and can be completed full time or part time. Courses are also available for qualified teachers to teach pupils with other special educational needs. Some of these focus generally on special educational needs, while other courses are more specific, focusing on a particular learning difficulty, such as dyslexia or autism. These courses are generally part-time, lasting several months.

Further postgraduate professional development is possible. Options include certificates as well as a Diploma or Masters in Special Educational Needs. Course content and titles vary according to the type of special education or disability being covered. Courses are usually offered part-time but some full-time courses are also possible. In-service training is also available. Many local authorities provide special needs courses for teachers working in the field. There is a special educational needs element to all ITE courses.

As well as the development of a SENCO award (see Chapter Nineteen), the Department of Children Schools and Families has taken steps such as the following to develop workforce knowledge, skills and understanding of SWSEN (Rose, 2009):

Working with the Training and Development Agency for Schools:

- Encouraging initial teacher training providers to build on their coverage of SWSEN by offering specialist units for primary undergraduate ITE, launched in June 2008 to aid dissemination. These include a Unit entitled 'Learning and teaching for dyslexic pupils'. Similar units for secondary undergraduate courses and for post-graduate teacher training courses were rolled out in September 2009.

- Developing materials enabling subject/curriculum tutors to check their knowledge of SWSEN and disability in relation to their subject area.

- Promotion of enhanced opportunities for student teachers to gain experience of working in special schools or other specialist provision.

- Promoting the use of specialist materials for the induction of new teachers'.

Working through the National Strategies:

- Investing further in the Inclusion Development Programme, which started in 2008, to raise the knowledge, awareness and confidence of teachers and other school staff in working with children with SWSEN. Materials issued so far have focused on training on children's communication difficulties (including dyslexia), autism, with materials focused on students with behavioural, emotional and social difficulties to be issued in 2010.

Other initiatives:

- Developing Trusts to promote best practice in relation to dyslexia, communication needs and autism, in partnership with voluntary sector organisations.
- Encouraging special schools to provide outreach services to mainstream schools.

Finally, in this outline of developments of teacher education in England and Wales, the conclusions of the Department for Education and Skills (DfES) (2004) publication, *Removing barriers to achievement*, is worth describing in some detail. After noting that since every teacher should expect to teach SWSEN, they must be equipped with the skills to do so effectively. This will require action at three levels:

- Core skills for ALL teachers in ALL schools
- Specialist skills in SOME local schools
- Advanced skills for SOME teachers in ALL schools

Level I. Improving core skills – for all teachers. ITE should provide a good grounding in the core skills needed for teaching in today's diverse classrooms, including: (a) planning and teaching for inclusion and access to the curriculum, (b) behaviour management and awareness of the emotional and mental health needs of pupils, (c) assessment for learning, and (d) an understanding of where professional advice may be needed. The DfES undertook to work with (what became) the Training and Development Agency for Schools to explore the scope for introducing practical guidance on how inclusive practice might be embedded across the ITE curriculum. It also recommended that newly qualified teachers continue to develop the skills of inclusive teaching during their induction year.

Level II. Developing advanced skills – in all schools. In order to support their colleagues in delivering improvements for children with SWSEN in the classroom, the Department wanted to develop staff with advanced skills in special educational needs (i.e., SENCOs), describing them as key members of the senior leadership team, able to influence the development of policies for whole school improvement. As well local authorities were encouraged to create a new cadre of staff with particular expertise in special educational needs and dealing with students' emotional, mental and behavioural difficulties.

Level III. Developing specialist skills – within each community of schools. In order to support the inclusion of children with increasingly complex difficulties, the Department wanted to build up the specialist expertise within each community of schools. It proposed doing this by working with higher education institutions to support the development of specialist qualifications for those wishing to specialise in special education needs in the mainstream or special sectors. It was envisaged that these qualifications would cover both the theory and practice of working with children with particular needs, such as behavioural, emotional and social difficulties or severe learning difficulties.

As well, the Department noted that it had developed induction-training materials on special educational needs for teaching assistants working in both primary and secondary schools.

United States. According to INCA (http://inca.org.uk/usa-initial-special.html) and Ackerman et al. (2002), around 700 colleges and universities in the US have ITE programmes to prepare students to become special education needs teachers. Most states require special education teachers to complete a Bachelor's Degree programme, although some will require a Master's Degree for special education licensure. Other states require licensure in general education first, then additional coursework in special education. All are designed to ensure that students meet the requirements of state licensing regulations. Colleges and universities are not only accredited by their state, but those providing the teacher training programmes at these institutions may also choose to seek accreditation from the National Council for Accreditation of Teacher Education (NCATE). In addition, during general ITE, trainee teachers normally have the option of undertaking specific optional courses relating to special education.

Training institutions accredited by NCATE have to meet rigorous standards established by those working in the field. The Council for Exceptional Children (CEC), the professional organisation representing those who work with children with disabilities, has developed guidelines for special education teacher training programmes that are used by the NCATE. These require students in special education teacher training programmes to study the following areas : [1]

- Philosophical, historical and legal foundation of special education
- Characteristics of learners
- Assessment, diagnosis and evaluation
- Instructional content and practice
- Planning and managing the teaching and learning environment
- Managing student behaviour and social interaction skills
- Communication and collaborative partnerships
- Professionalism and ethical practice
- Experience with children, including a student teaching placement lasting between eight to 10 weeks.

As INCA (2010) points out, there is a great deal of variation in individual states' requirements and standards for the licensing of special needs teachers. Some require teachers of SWSEN to have a categorical licence, while some expect them to hold a non-categorical/generic licence. The holder of a latter can teach a student with any disability, while a categorical licence enables a teacher to teach children with a particular disability, such as hearing impairments or physical disabilities. Most states use a blend of both types of licence. To take one example, the state of Kentucky, requires a categorical licence. Teachers of students with special educational needs usually have an 'Exceptional Children Licence', which allows them to teach or collaborate with teachers to design and deliver programmes for children from primary to Grade 12. Their training usually includes one or more of the following specialisations: (a) learning and behaviour disorders, (b) moderate and severe

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[1] In its 'red book', the Council for Exceptional Children (CEC) sets out detailed standards for special education teachers, available online at:

http://www.cec.sped.org/bk/catalog2/Red_book_5th_edition.pdf

disabilities, (c) hearing impaired, (d) hearing impaired with sign proficiency, (e) visually impaired, or (d) communication disorders.

Ackerman et al. (2002) noted that there is debate over categorical or non-categorical licensure, with proponents of the former arguing that each disability category is substantially different from others and that teachers should be highly specialised in that area, while proponents of the latter arguing that teachers should be prepared to teach all children and should have the expertise to address differing abilities and disabilities.

Ackerman et al. pointed to two other controversial issues in US approaches to teacher education in special education. Firstly, given the critical teacher shortage in special education, alternative licensure programmes have evolved in recent years. Thus, for example, army personnel are being trained for a second career in teaching and drastically intensified and accelerated summer programmes are replacing four-year licensure programmes. Also, some districts have been filling special education positions with teachers who have either no prior education experience or have only general education experience and providing provisional or conditional licensure to these newly hired teachers. (For a review of best practices in these 'alternative route' special education teacher preparation programmes, see Wasburn-Moses & Rosenberg, 2008). Secondly, there have been moves in higher education to merge special education teacher education programmes into the general education programmes, doing away with special education altogether. As argued by Arthaud et al. (2007), the move towards inclusive education requires greater collaboration among general education and special education teachers, and this should be reflected in teacher preparation programmes The arguments for and against this teacher education structure are similar to those for categorical versus non-categorical licensure.

Finally, in this section on US teacher education, attention should be drawn to the recommendations of the influential President's *Commission on Excellence in Special Education (2002).* In a hard-hitting criticism of existing teacher education programmes in the US, the Commission argued that 'curricula and methodologies utilised in colleges of education are not empirically connected to improved student achievement' (p.53). As a consequence, 'the current system of pre-service and in-service education is not sufficient to produce personnel who can ensure students with disabilities achieve satisfactory outcomes' (ibid.). To correct this situation, the

Commission urged colleges of education to 'move from folk wisdom, weak research and opinion on what are important characteristics of effective teachers and begin to focus on helping to strengthen the teacher competencies that have clear data for producing student gains' (ibid.). Further, 'both pre-service and professional development training must ensure that instruction in pedagogy is research-based and linked directly to student learning and achievement' (ibid.).

On the basis of these and other arguments, the Commission advanced a range of recommendations, including the following:

> 'Recruit and train highly qualified general and special education teachers. States and districts must devise new strategies to recruit more personnel who are highly qualified to educate students with disabilities. State licenses and endorsements for all teachers should require specific training related to meeting the needs of students with disabilities and integrating parents into special education services. States must develop collaborative, career-long professional development systems that conform to professional standards. Create research and data-driven systems for training teachers of special education. Formal teacher training should also be based upon solid research about how students learn and what teacher characteristics are most likely to produce student achievement. State Education Agencies (SEAs) and institutions that train teachers and administrators should implement data-driven feedback systems to improve how well educators educate children with disabilities.
> Institute ongoing field experiences. Post-secondary institutions and state and private organizations that train teachers should require all students to complete supervised practicum experiences in each year of their training. These practices provide them with a comprehensive view of the full range of general education, special education and inclusive settings or service delivery models for students with disabilities.
> Require rigorous training in reading. States and school districts must implement more rigorous requirements for training educators in scientifically based assessment and intervention in reading. General and special education teachers must implement research-based practices that include explicit and systematic instruction in phonemic awareness, decoding, fluency, vocabulary and comprehension.
> Require public reporting. Title II of the Higher Education Act should require programs for teacher education, administrative personnel to publicly report the performance of general education and special education program graduates relative to educating students with disabilities.
> Increase special education and related services faculty. Institutions of higher education should recruit and train more fully qualified professors of special education to address the shortage of special education and related services doctorate holders who are qualified to teach our nation's future educators and prepare them to achieve better results for diverse learners.
> Conduct research. The Department of Education, in collaboration with other federal agencies, should conduct research to identify the critical factors in personnel preparation that improve student learning and achievement in

schools. While recent research has begun to determine critical factors in instruction, more high-quality research is needed on instructional variables that improve achievement by students with disabilities' (pp.50-51).

18.3   Proposed Values, Knowledge and Skill Sets for Educators Working in Inclusive Settings

Elsewhere, the writer has published a proposed set of values, knowledge and skills that educators should acquire before and during their professional careers if they are to be successful in their work with diverse learners (Mitchell, 2013). He suggested that there are 24 values, knowledge and skills sets, which should be developed at three levels – basic, intermediate and advanced - depending on the level of expertise that is expected of the various professionals. Respectively, 'basic' refers to the application of values, knowledge and skills to individual SWSEN by teachers and other professionals at the classroom level, 'intermediate' refers to the provision of appropriate advice and guidance by advisers and consultants to professionals working at the classroom level, while 'advanced' refers to the training of professionals working at the basic and intermediate levels, as well to advancing knowledge through relevant research.

The following comprise the 24 sets:

1. Adapt the curriculum for SWSEN
2. Employ curriculum-based assessment
3. Adapt assessment and develop alternate assessment and report results for SWSEN
4. Diagnose difficulties in learning and behaviour, including functional assessment and curriculum-based assessment
5. Understand broad concepts of diversity
6. Understand legal and ethical issues in inclusive education
7. Evaluate and use evidence-based teaching strategies and underlying learning theories
8. Engage in collaborative teaching and interdisciplinary practices
9. Support family and community involvement
10. Demonstrate respect for cultural differences, especially in the main minority groups
11. Understand the principles of equity, social justice and non-discrimination
12. Understand issues in defining and identifying SWSEN

13. Address barriers to learning

14. Articulate a philosophy of inclusive education, including the rights of SWSEN

15. Cooperate with other relevant agencies

16. Provide appropriate resourcing for SWSEN

17. Provide appropriate professional development for school personnel

18. Provide leadership in educating SWSEN

19. Utilise appropriate assistive technology

20. Engage in transition planning for SWSEN

21. Ensure that classrooms have optimal physical features

22. Demonstrate skills in collecting and analysing data on SWSEN, including responses to intervention

23. Employ relevant disability-specific teaching

24. Understand relevant research; design and carry out research

Nine target groups were identified:

1. Initial teacher education students

2. Regular teachers in practice

3. Special education teachers

4. School principals

5. Special education consultants

6. Specialist advisers (e.g., hearing, vision advisers)

7. Teachers' aides/assistant teachers/paraprofessionals

8. Teacher educators (curriculum specialists)

9. Teacher educators (method specialists)

A matrix was drawn up to show how the various values, knowledge and skills would be incorporated into training programmes for the various groups. For example, #1 Adapt the curriculum for SWSEN would apply as follows:

Initial teacher education students: Basic

General teachers in practice: Basic+

Specialist teachers: Basic+ (appropriate to specialism)

School principals: Intermediate, with a focus on leadership

Special education consultants: Intermediate

Specialist advisers (e.g., hearing, vision advisers): Intermediate (appropriate to specialism)

Teachers' aides/assistant teachers/paraprofessionals: Basic

Teacher educators (curriculum specialists): Advanced (in relevant curriculum area)

Teacher educators (method specialists): Advanced (in all curriculum areas).

For another perspective on preparing teachers for inclusive education, see Florian & Linklater (2010). They report on a Scottish study of an initial teacher education course that starts from the premise that the question is not whether teachers have the necessary knowledge and skills to teach in inclusive classrooms, but how to make best use of what they already know when learners experience difficulty. Two Canadian researchers make the case that effective inclusionary practices, and therefore overall effective teaching, depend in part on the beliefs of teachers about the nature of disability, and about their roles and responsibilities in working with students with special education needs Jordan et al., 2009). Elementary classroom teachers who believe students with special needs are their responsibility tend to be more effective overall with all of their students.

18.4   Summary

1. *Teacher education in the field of SWSEN involves consideration of four main areas:*
    a. *The nature of initial teacher education (ITE) for general education teachers and special education teachers.*
    b. *Specialist qualifications for professionals working in an advisory or consultancy capacity.*
    c. *The training of paraprofessionals.*
    d. *Professional development for professionals working with SWNEN*
2. *There is considerable variability with respect to all of these issues between and even within countries.*
3. *Many countries are adapting their teacher education programmes to take account of the recent emphasis on inclusive education.*
4. *Many jurisdictions are prescribing in considerable detail what is expected of various training programmes.*

5. *In England and Wales, a three-level model of teacher education is being implemented. This involves developing the following:*
   a. *Core skills for ALL teachers in ALL schools*
   b. *Specialist skills in SOME local schools*
   c. *Advanced skills for SOME teachers in ALL schools*

6. *In the US, there is debate over categorical vs non-categorical licensure and the extent to which special and general teacher education should and can be merged.*

7. *In the US, the 2002 President's Commission was highly critical of colleges of education for not ensuring that their curricula and methodologies were empirically connected to improving student achievement and, accordingly, recommended sweeping reforms in teacher education.*

8. *Educators should acquire a set of values, knowledge and skills before and during their professional careers if they are to be successful in their work with SWSEN. Twent-four such values, knowledge and skills should be developed at three levels – basic, intermediate and advanced - for various groups involved in education.*

CHAPTER NINETEEN

COLLABORATION

Kotahi te kohao	There is but one eye
O te ngira	of the needle
E Kahuna ai	Through which passes
Te miro ma	The white thread
Te Miro pango	The black thread
Te miro Whero	The red thread

These words were spoken by New Zealand's first Maori King, Pootatau Te Wherowhero to his son, Tukaroto Matutaera, who would become known as Kiingi Taawhiao after he was raised up to the Kingship on the death of his father, in 1860.

Educating SWSEN requires collaboration among many people – several professionals and parents in particular. Indeed, there are few areas of education that call upon so much collaboration and teamwork. This is particularly true in inclusive education where, ideally, general classroom teachers may work with various combinations of specialist teachers; special needs advisers; educational psychologists; therapists and other specialists; community agencies such as welfare services, police and advocacy groups; paraprofessionals; technology consultants; and, of course, parents (Rainforth & England, 1997). Indeed, there are many threads to pass through the eye of the needle! To put it more technically, collaboration can be defined as a process that enables groups of people with diverse expertise to combine their resources to generate solutions to problems over a period of time (Idol et al., 1994).

In this chapter, eight topics will be addressed: (1) different forms of educational support, (2) the importance of collaboration, (3) principles of collaboration, (4) co-teaching, (5) paraprofessionals, (6) special needs advisers, (7) educational psychologists, and (8) service integration. The role of parents will be discussed in the Chapter Twenty-two.

19.1 Different Forms of Educational Support to Teachers

Collaborative approaches to educating SWSEN are increasingly becoming embedded in education systems around the world. This is well illustrated in the following outline

of the sources of support for regular class teachers in their work with SWSEN in 23 European countries (European Agency for Development in Special Needs Education, 2003). Several interesting patterns of support emerge: (a) 17 of the countries utilised outside agencies, including psychological services (e.g., Austria Belgium, Czech Republic, France, Germany, and Norway), (b) 16 referred to specialist teachers within schools (e.g., Cyprus, Finland, Iceland, Portugal, and Sweden), and (c) 8 utilised teachers from special schools to support their regular class teachers (e.g., Austria, Belgium, Germany, Greece, Leichtenstein, and Switzerland). Nearly two-thirds (14) utilised two or more sources of educational support.

Austria. Support was mainly provided by specialist teachers from special schools or from visiting services. They supported both the class teacher and the pupil. Classroom and specialist teachers worked as a team, sharing the planning and organisation of the educational work. Professionals from visiting services offered temporary direct support to included pupils presenting specific disabilities.

Belgium. Support was mainly provided by specialist teachers from special schools and from Centres for Pupil Guidance. They provided information, advice and support to the class teacher. It was possible to find remedial teachers working as school staff members. They mainly supported pupils presenting short-term difficulties, but more and more providing direct support to class teachers and the school, trying to coordinate provision of support, working methods and educational programmes.

Cyprus. Support was provided by specialist teachers fully or partially attached to the school and by specialists, such as speech therapists, who had specific time allocated to each school. Outside the school, central services, such as inspectors, SENCOs, education and psychology specialists, or health and social services, also provided the necessary support.

Czech Republic. Support was mainly provided by specialist teachers or other professionals, such as psychologists. They provided advice and support to class teachers, parents and direct support to the included pupil. Support was 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 were 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 was mainly provided by a specialist teacher working as a school staff member. They co-operated inside the class with the class teacher on a part-time basis. 'Group teaching' outside the classroom was another possibility where the pupil needs regular support in more than one subject. Local pedagogical psychological services were 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 had a member of staff who was the designated special educational needs co-ordinator with a wide range of responsibilities, articulated in the Special Educational Needs Code of Practices, including: overseeing provision, monitoring pupils' progress, liaising with parents and external agencies, and supporting colleagues. Support was 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 worked increasingly with teachers, in order to develop teaching approaches and strategies within the school, rather than directly with pupils.

Finland. Support was 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, could also provide support to the school in general, to the teacher and/or the pupil. A pupil welfare team was 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 existed a 'pupil support group' involving all professionals and the principal of the school to ensure good educational conditions and progress.

France. Support was mainly provided by specialist professionals from various services. They supported included pupils on a short- or long-term basis. They also helped the class teacher and the school staff. Specialist teachers from special support networks also provided support to pupils presenting temporary or permanent learning difficulties.

Germany. Support was mainly provided by a specialist teacher from a special school or from a social service. Support was diverse and included preventive measures, joint education actions in mainstream schools, education co-operation between special and

mainstream schools etc.. There could also be a support teacher working as a school staff member. They were mainly teachers specialising in language or behaviour problems. They worked mainly with pupils inside or outside the classroom according to the pupils' needs.

Greece. Support was mainly provided by a specialist teacher from a special school. Their work consisted 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 was mainly provided by a remedial teacher working as a school staff member. Other types of support were also provided by specialist teachers, psychologists or other professionals from the local municipalities. They provided general advice on the curriculum and on the teaching of the main subjects; guidance for pupils and psychological counselling. Their aim was to support teachers and head teachers on daily schoolwork and school improvement.

Ireland. Support could be provided by a specialist or resource teacher working as a school staff member. They were dealing with pupils with assessed learning disabilities. Support could also be provided by a remedial teacher working as a school staff member. Their main aim was to work with pupils with difficulties in reading and mathematics. All primary and post-primary schools had such a teacher. Another type of support was a visiting teacher from the Visiting Teacher Service (Department of Education). They worked with individual pupils, both inside and outside the classroom, and advised teachers on teaching approaches, methodology, programmes and resources. They also provided support for parents. The Psychological Service of the Department of Education and Science provided assessment and advisory service for mainstream schools with a focus on pupils with emotional and behaviour problems and with learning difficulties.

Italy. Support was mainly provided by a specialist teacher working as a school staff member. They acted as class teachers, providing support in the mainstream school after obtaining parental authorisation. Support teachers shared responsibility with the class teacher concerning the work to be done with all pupils. Implementation of an individual education plan was one of their main tasks. They also supported pupils inside the classroom; pupils with disabilities were not to be pulled out of their classes unless absolutely necessary.

Liechtenstein. Support was mainly provided by a specialist teacher from a special school. They mainly provided support to pupils but also to teachers and parents.

Lithuania. Support was mainly provided by specialist teachers, school psychologists, speech therapists, social pedagogues from special schools or from pedagogical psychological services. Specialist teachers provided class teachers with information and practical support: elaborating an individual educational programme, selecting educational materials etc.. Support could also be provided by a remedial teacher, speech therapists, school psychologists working as school staff members. These specialists were mainly available in mainstream schools in big cities or towns; there was still a lack of specialists in rural areas. Pedagogical psychological services at local or national levels provided assessment of pupils and guidance for education of included pupils.

Luxembourg. Support was mainly provided by specialist support professionals from the SREA (Ambulatory Remedial Department). They were professionals in education and rehabilitation and shared responsibilities with class teachers with regard to direct support to the pupil. Class teachers were always in charge of the organisation of the class.

Netherlands. Support was mainly provided by a support teacher from a special school. They worked 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 focused on information to teachers, assessment and providing teaching materials. Support teachers may also be one of the mainstream schoolteachers providing direct help and support to the pupil.

Norway. Support was mainly provided by a specialist teacher working as a school staff member. They co-operated with the class teacher part-time or full time. Support could also be provided by an assistant in the classroom. There was close cooperation between the three of them. The local educational psychological services were the ones to advise school and parents on the content and organisation of the education required for the pupil. They were the people mainly responsible for advising teachers on the daily work.

Poland. Teachers working with disabled pupils received support from the National Centre of Psychological and Pedagogical Support or from regional Teaching

Methodology Centres. These centres provided training courses for teachers. Mainstream schools were to provide psychological and pedagogical support to pupils, parents and teachers, organising, for example, remedial classes.

Portugal. Support was mainly provided by specialist teachers, or other professionals either from local support teams or internal school staff members. National policy gave priority to the second situation. The aim was to create co-ordinated teams which would provide guidance to class teachers. They co-operated with the head teacher and the school to organise the necessary educational support; they co-operated 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 was mainly provided by a specialist support teacher working as a school staff member. They worked in primary and secondary schools and played an important role with the pupil and the teacher, planning together the curriculum differentiation and its implementation. They also supported families and worked in cooperation with other professionals. Another type of support was a remedial teacher for learning support, present in all primary schools. Support could also be provided by local psychological pedagogical support teams. They were 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 was mainly provided by a specialist teacher working as a school staff member. Municipalities were responsible for providing and financing support to schools. If needed, support to build up knowledge in the municipalities could be provided at a national level through the Swedish Institute for Special Needs Education.

Switzerland. Support was mainly provided by support teachers, specialist teachers or specialist professionals from special schools or mainstream schools (milder forms of SEN). They provided support to included pupils and their teachers

19.2   The Importance of Collaboration

Collaboration has three main benefits for SWSEN:

1. It has potential to create synergy – where 'the whole is greater than the sum of the parts'.
2. It has the potential to provide opportunities for the participants to learn new ways of addressing barriers to learning.

3. It increases the coordination of services for SWSEN.

As indicated by Mitchell (2014b), to release the potential of collaboration, participants have to learn the skills of working as a team member for at least part of their work. For those who have been used to working alone as a sole professional, it is a big step to develop new ways of working in which one is expected to share responsibility and expertise with other professionals in other disciplines. The 'private' now becomes the 'public'; what was once implicit and unexpressed in professional practice now has to become explicit and explained to others. One's autonomy may even seem to be lessened, as one has to adapt to other people's ideas and personalities.

19.3 Principles of Collaboration

Successful collaborative arrangements depends on several factors (Friend & Cook, 1992; Mitchell, 2014b; Idol, et al., 1994):

- Establishing clear, common goals for the collaboration.
- Defining the respective roles and who is accountable for what, but accepting of joint responsibility for the decisions and their outcomes.
- Adopting a problem-solving approach – with a sense that all those in the collaborative arrangement share ownership of the problem and its solution.
- Establishing an atmosphere of trust and mutual respect for each other's expertise.
- Being willing to learn from others.
- Aiming for consensus decision-making.
- Asking for and giving immediate and objective feedback to others in a non-threatening and non-judgemental manner.
- Giving credit to others for their ideas and accomplishments.
- Developing procedures for resolving conflicts and managing these processes skilfully.
- Arranging periodic meetings to review progress in the collaborative arrangements.

19.4 Co-teaching

Sometimes known as *cooperative teaching*, this occurs in inclusive education settings when a general education teacher and a special education teacher combine their expertise to meet the needs of all learners in the class. Both assume the roles of

equal partners. It does not normally mean that the special education teacher takes exclusive responsibility for SWSEN and the general teacher the rest of the class. Rather, it means respecting each other's expertise in order to benefit all students in the class. From the descriptions of the European countries above, Italy most closely fits this pattern of collaboration. In addition to the points in the previous section, to make co-teaching work, there needs to be:

- active support from the school's leadership;
- adequate, regular joint planning time;
- agreement on procedures for handling learners' disruptive or off-task behaviours;
- agreement on lesson objectives and structures, including teaching strategies and assessment methods;
- clear communication with parents about the co-teaching arrangement.
- (Dieker & Barnett, 1996; Reeve & Hallahan, 1996; and Walter-Thomas et al., 1996)

In their meta-analysis of the effects of co-teaching on student outcomes, Murawski & Swanson (2001) reviewed 89 articles published between 1989 and 1999. Only six of these provided enough information for effect sizes to be calculated and these ranged from 0.24 to 0.95, with an average of 0.40. Thus, on the basis of a small database, co-teaching is moderately effective at best. There is a need for more experimental research to be conducted, especially in the light of the regularity with which co-teaching is cited in the literature as an effective service delivery option in inclusive classrooms.

19.5   Paraprofessionals

Paraprofessionals – referred to variously as 'teaching assistants', 'teacher aides' and 'learning support assistants' - are commonly utilised in special and, increasingly, in inclusive education. According to O'Connor et al. (2012), the pivotal role of Special Needs Assistants (SNAs) in Ireland and Classroom Assistants (CAs) in Northern Ireland cannot be under-estimated; their input under the direction of the class teacher can demonstrably improve educational experiences. However, the authors note that while training for these support staff is becoming recognised as a priority for effective inclusion, few of them have an appropriate qualification to support SWSEN. They recommend that Governments in both jurisdictions should

take steps to address the status of SNAs and CAs in schools to ensure that their development pathways fulfill the educational, social and pastoral dimensions of inclusion.

In a similar vein, Giangreco & Doyle (2002) claimed that too many paraprofessionals have been inadequately appreciated, compensated, oriented, trained, and supervised. They lamented the fact that there are negligible data on student outcomes related to the utilisation of paraprofessionals. Many questions need to be addressed, both at the policy and research levels. For example, to what extent should paraprofessionals be involved in direct teaching SWSEN? What impact does their presence have on such students? How does the utilisation of paraprofessionals' support affect teacher engagement? And what should be done to improve paraprofessional supports?

As summarised by Riddell et al. (2006), a number of studies have found that effective and inclusive pedagogies were supported by a team approach in classrooms where teachers and teaching assistants (TAs) worked together to support all children. However, whilst recognising how important this strategy has been in promoting classroom inclusion, Riddell et al. noted that 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. According to Groom & Rose (2005) there is no single model of classroom teamwork that should be endorsed but the aspects of the TA role that contributed to effective practice included:

- time for establishing individual positive relationships with students;
- 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 students' difficulties;
- access to a range of support strategies (Groom and Rose, 2003: 12).

A recent study of 20,000 teachers and support staff in England and Wales is relevant here (Blatchford et al., 2012). Somewhat unexpectedly, while it found that support staff such as teaching assistants helped teachers feel more positive about their work and enabled them to spend more time with the rest of the class, the learners

supported by teaching assistants made less progress on average than those of similar ability, social class, and gender who did not receive such assistance. The researchers attributed this finding to the fact that less than a quarter of teachers have been trained to manage teaching assistants and few of them allocate planning or feedback time with teaching assistants. They also noted that the more time learners spent with teaching assistants, the less contact they had with their teachers. The result is often that learners with most need can become separated from the teacher and curriculum.

In their review of special education in the ACT, Shaddock et al. (2009) spent some time in discussing the role of Learning Support Assistants (LSAs). They noted that Australian research shows that in classrooms where there are students who are complex and/or challenging the LSA was much appreciated (e.g., Shaddock, et al. 2007). However, despite the generally strong support for LSAs, there are concerns about the role:

- there is insufficient role clarity, training and professional development opportunities;
- system policy around the skills LSAs need to assist teachers with curriculum and pedagogy are unclear;
- there are issues around the current and future availability of appropriately qualified and experienced LSAs.
- LSAs perform a wide range of roles for which not all may have adequate training;
- the involvement of LSAs can have unintended, negative effects on student engagement, learning, independence and/or social acceptance;
- in some situations, LSAs are exploited personally, professionally and/or in terms of salary and conditions;
- the presence of LSAs has been associated with teachers devolving responsibility to them for students with a disability;
- some teachers do not have the skills to direct and supervise LSAs; and
- role confusion, blurring and overlap are frequently reported.

(Shaddock et al. 2007, p.213).

Shaddock et al. (2009) went on to point out that the lack of research support for the positive impact of LSAs on student learning outcomes has prompted the search

for alternatives to LSAs and/or to more carefully define their roles. They cited the following proposal from Giangreco et al. (2004):

- using the resources currently devoted to LSAs to employ more teachers, improve teacher professional learning and networking, reduce class sizes and/or purchase therapy, equipment, consultancy and other supports for inclusive practice;
- establishing a mobile pool of LSAs who are available for time-limited involvement and whose support is systematically phased out and replaced with mainstream supports;
- clarifying the LSA role to be indirect support for the teacher;
- implementing peer-support strategies that replace some roles currently performed by LSAs; and
- consulting students about the way they would prefer to receive support.
- In the US, the No Child Left Behind Act (NCLB) of 2001 clarified the job of paraprofessionals with an official title and job description. Prior to this act, qualifications for teacher's assistants were made at the district and state level. Section 119 of the NCLB Act governs the qualifications of paraprofessionals for schools receiving federal funds. This law states that paraprofessionals must have an associate's degree (equivalent to two years of study in an institution of higher education) and pass a 'state or local academic assessment,' including knowledge of assisting in the instruction of reading, writing and mathematics. These requirements created a distinction between aides and paraprofessionals, with the paraprofessional job description becoming much more defined. Paraprofessionals are allowed to engage in one-on-one tutoring, manage instructional materials, act as a translator and provide assistance with computers and library activities. They must remain under the direct supervision of a licensed teacher. They can still perform non-instructional duties and work with non-disabled children so long as the time spent is balanced evenly.

19.6   Special Needs Advisers

Various countries have developed cadres of professionals to act as advisers/consultants to teachers of SWSEN. They provide an indirect service delivery model, in that the consultant does not necessarily work directly with students, except

to occasionally demonstrate a teaching strategy. The essence of this approach is that a special education teacher/adviser (or some other specialist) provides advice and guidance to the general classroom teacher on the programme to be followed by any SWSEN. Both teachers normally meet outside classroom teaching time (admittedly, a logistical problem, which has to be solved by the school leadership: see Idol, 1997) and discuss any curricular, teaching and assessment adaptations required for such students As well, the special education adviser may provide additional instructional materials and help to modify the classroom environment. In all of this the classroom teacher carries the main responsibility (see Elliott & McKenney, 1998). To make this consultation model work, the special education teacher must be thoroughly familiar with the curriculum being followed in the classroom and the classroom teacher must continue to have chief responsibility for educating all students in his or her class.

In this section, two countries' provisions will be discussed: England and Australia.

England. Here, a special educational needs teacher working in a mainstream school can become a Special Education Needs Coordinator (SENCO). Applicants for that position usually need two-plus years of post-qualification experience. The SENCO is expected to have a good understanding of the three stages of special educational needs: school action, school action plus, formal assessments and statementing [1]. The SENCO is usually the head of the special needs department and is responsible for day-to-day provision for pupils with special educational needs. This involves coordinating work with a range of agencies and parents, gathering appropriate information on children with special needs and ensuring individual education plans are in place. A SENCO in mainstream schools will allocate learning support assistants or teaching assistants to support individual students in the classroom and may hold the budget for these resources. A SENCO may also be the deputy head teacher or head teacher.

From 1 September 2009, new regulations from the Department for Children, Schools and Families required all new SENCOs to achieve the national award for SEN coordination.[2] The Training and Development Agency for Schools has developed a framework of nationally approved training for teachers new to the role of

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[1] See Chapter Seven, section 7.5 for a description of these three stages

[2] http://www.tda.gov.uk/about/newsletter/sep2009/Articles/workingforchange.aspx

SENCO. Training will take approximately a year to complete and SENCOs will have up to three years to achieve the qualification. To achieve the National Award for SEN Coordination the Department for Children Schools and Families requires that teachers should meet all the learning outcomes from a specified list of 13 topics, as follows:

1. Statutory and regulatory frameworks and relevant developments at national and local level
2. High incidence SEN and disabilities and how they can affect pupils' participation and learning
3. Using evidence about learning, teaching and assessment in relation to pupils with SEN to inform practice
4. Working strategically with senior colleagues and governors
5. Strategic financial planning, budget management and use of resources in line with best value principles
6. Strategies for improving outcomes for pupils with SEN and/or disabilities
7. Developing, using, monitoring and evaluating systems
8. Using tools for collecting, analysing and using data
9. Deploying staff and managing resources
10. Providing professional direction to the work of others
11. Leadership and development of staff
12. Drawing on external sources of support and expertise
13. Consulting, engaging and communicating with colleagues, parents and carers and pupils to enhance pupils' learning and achievement.
    For example, #3 specifies that training should enable SENCOs to:

- Analyse, interpret and evaluate critically, relevant research and inspection evidence about teaching and learning in relation to pupils with SEN and/or disabilities and understand how such evidence can be used to inform personal practice and others' practice.

- Identify and develop effective practice in teaching pupils with SEN and/or disabilities, e.g. through small-scale action research based on evaluating methodologies, developing critiques and, where appropriate, developing new hypotheses.

- Have a critical understanding of teaching, learning and behaviour management strategies and how to select, use and adapt approaches to remove barriers to learning for pupils with SEN and/or disabilities.

- Have a critical understanding of approaches, strategies and resources for assessment (including national tests and examinations) and how to select, use and adapt them to personalise provision and remove barriers to assessment for pupils with SEN and/or disabilities.

Australia. In their review of special education in the ACT, Shaddock et al. (2009) proposed the development and trialling of a school-based, Learning Support Coordinator (LSC), a role designed to improve classroom pedagogy with a particular focus on students functioning in the lowest quartile. They cited recent Australian research in support of this role; for example, Shaddock et al. (2007) found that schools in which an experienced special educator managed learning support across the school achieved good outcomes for students with a disability.

Shaddock et al. (2009) noted that some school systems in Australia (Western Australia and NSW) were beginning to employ LSCs who have special education knowledge and experience and who have school-wide responsibilities for raising the quality of teaching and learning, with particular focus on students who struggle with the curriculum. In Western Australia, for example, the LSCs' functions included:

- facilitating the work of Learning Support teams;
- consulting and collaborating with teachers with regard to meeting the educational needs of students with disabilities and learning difficulties;
- supporting classroom teachers to develop, implement and monitor learning plans for individual and groups of students with disabilities or learning difficulties; and
- modeling effective teaching and supporting classroom teachers who have students requiring significant teaching and learning adjustments.

The Western Australian LSCs are appointed from existing staff in schools and receive ongoing training and participate as part of the Building Inclusive Classrooms Professional Learning Program. This involves an initial 12 days of fully funded professional learning in their first two years.

In recommending the development of LSC positions in the ACT, Shaddock et al. (2009) noted that although LSCs were not widespread there, some schools had

organised their services and appointed staff who fulfilled similar roles. They also noted that in WA and NSW the LSCs were 'disability, and learning difficulties-specific'. Instead, 'one implication of the ACT's broader understanding of inclusivity is that if the LSC approach were to be adopted *a major aim would be to build pedagogical capacity at the school and classroom level' (p.116)*. This would mean LSCs supporting classroom teachers to meet 'the individual learning needs of any students, for example, students with a disability or learning difficulty; those experiencing temporary difficulties with learning because of personal or family circumstances; and, if necessary, students with gifts and talents who were not performing to potential' (ibid.).

19.7   Educational Psychologists

In many countries, educational psychologists (referred to as 'school psychologists' in some countries and 'school counsellors' in Australia) are considered to play a vital role, not only in the education of SWSEN, but also in education more generally. In their review of special education in the ACT, Shaddock et al. (2009), for example, commented on 'the need for a more strategic use of these valuable, generic, resources for schools' (p.208).

In the UK, the 2001 *Code of Practice* described the educational psychologist as having 'a key role in assessment and intervention and in providing support and advice to parents' (p.36) in early years education. At the school level, the *Code of Practice* had this to say:

> the educational psychologist can be a very important resource for the school. The psychologist's knowledge of the school and its context is key. Through regular consultation with schools educational psychology services can provide help in clarifying problems and devising problem solving strategies; in carrying out specialised assessments, including techniques in managing behaviour, and evaluating individual pupil progress. In addition to working with individual children, the educational psychologist can work with groups of pupils or teachers and learning support assistants at the classroom or whole school level, for example assisting schools with the development of SEN and behaviour policies, helping to develop knowledge and skills for school staff and assisting with projects to raise achievement and promote inclusion (p.136).

In their review of the functions and contributions of educational psychologists in England and Wales, Farrell et al. (2007) placed it in the context of the *Every Child Matters* (ECM) legislation. They pointed out that the ECM agenda makes outcomes for children central to the recently established integrated children's services that form

a team around the child and family in the context of community and school. Outcomes for children are specified through aims, targets, indicators and inspection criteria, which are grouped around five main areas:

Be healthy: children and young people are (a) physically healthy, (b) mentally and emotionally healthy, (c) sexually healthy, (d) live healthy lifestyles, and (e) choose not to take illegal drugs

Stay safe: children and young people (a) are safe from maltreatment, neglect, violence and sexual exploitation; (b) are safe from accidental injury and death; (c) are safe from bullying and discrimination, (d) are safe from crime and anti-social behaviour in and out of school, and (e) have security, stability and are cared for.

Enjoy and achieve: children and young people (a) are ready for school, (b) attend and enjoy school, (c) achieve stretching national educational standards at primary school, (d) achieve personal and social development and enjoy recreation, and (e) achieve stretching national educational standards at secondary school.

Make a positive contribution: children and young people (a) engage in decision-making and support the community and environment, (b) engage in law-abiding and positive behaviour in and out of school, (c) develop positive relationships and choose not to bully or discriminate, (d) develop self confidence and successfully deal with significant life changes and challenges, and (e) develop enterprising behaviour.

Achieve economic well-being: Children and young people (a) engage in further education, employment or training on leaving school, (b) are ready for employment, (c) live in decent homes and sustainable communities, (d) have access to transport and material goods, and (e) live in households free of low incomes.

The majority of respondents in the review indicated that educational psychologists' work contributed to meeting each of the above five ECM outcomes through individual assessment, consultancy, intervention and training. There was a universally held view that educational psychologists had been too heavily involved in statutory assessments and that this had prevented them from making more effective contributions to maximising the ECM outcomes for children. Nevertheless, all

respondent groups identified an important role for educational psychologists as working with individual children who have severe, complex and challenging needs. Respondents typically referred to educational psychologists' academic background and training in psychology as being the factors that enabled them to offer a distinctive contribution. Most respondent groups valued highly the contact that they had, but would have welcomed more, particularly in the area of therapy and intervention.
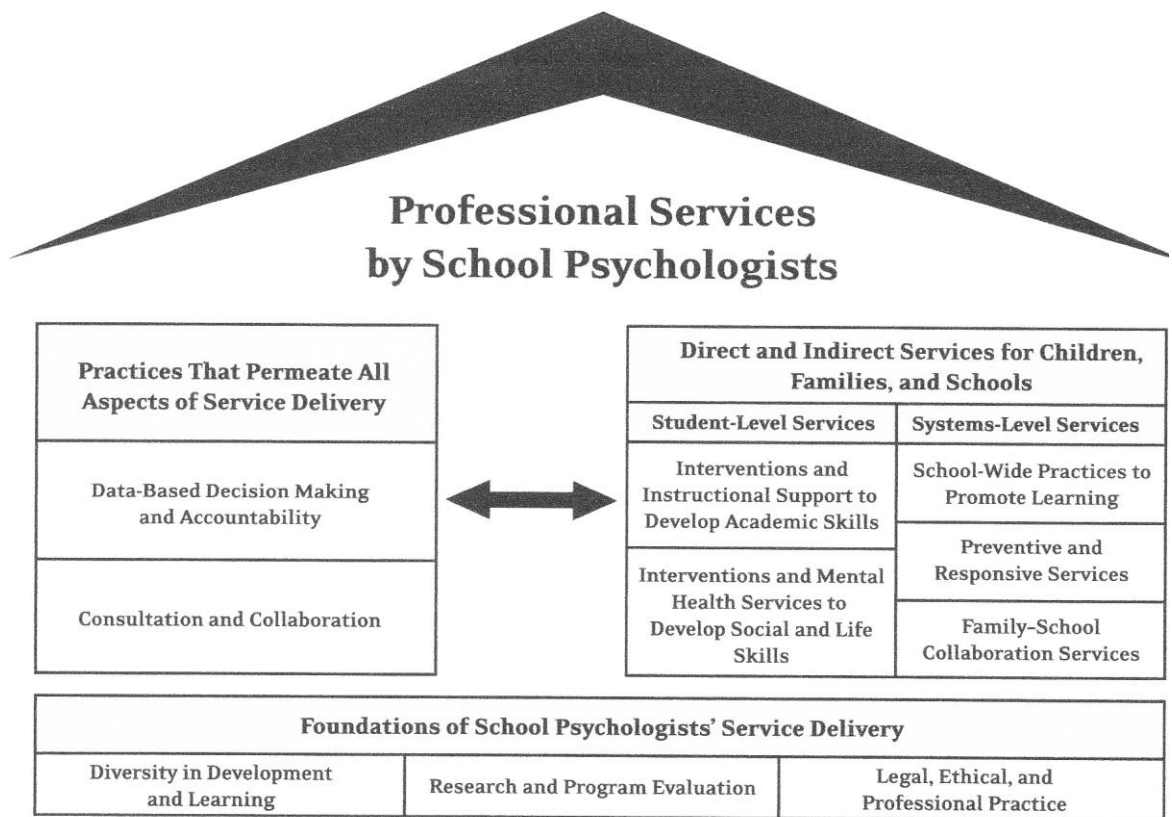
As well, Farrell et al. pointed out a number of other ways in which the developments embodied within the ECM agenda impact on the role of educational psychologists. Among the most significant, they felt, was the restructuring of local authorities into children's services, which combined educational and social services. This involves locating the work of educational psychologists more centrally within community contexts where schools form only one of the settings in which they would work. A further consequence was a renewed emphasis on the importance of multi agency work.

Among the recommendations advanced by Farrell et al. (2007) were that (a) 'all educational psychology service development plans should be based around meeting the five ECM outcomes and that annual reviews of services should assess the extent to which these plans have been successfully implemented', and (b) 'educational psychologists and other agencies working with children should engage in joint planning around the five outcomes so that each agency can assess the potential and actual contribution that they can make' (p.10).

Since 1978, in the US, the National Association of School Psychologists (2010) has promulgated successive revisions of guidelines for the provisions of school psychological services. In its latest iteration, the Association presented a model for the delivery of comprehensive school psychological services across 10 domains (see Figure 19.1). These domains reflect the following principles:

- A foundation in the knowledge bases for both psychology and education, including theories, models, research and techniques.
- Use of effective strategies and skills to help students succeed academically, socially, behaviourally, and emotionally.
- Application of knowledge and skills by creating and maintaining safe, supportive, fair and effective learning environments and enhancing family-school collaboration for all students.

- Knowledge, skills and professional practices reflect understanding and respect for human diversity and promote effective services, advocacy, and justice for all children, families and schools.
- Integrate knowledge and professional skills across the 10 domains that result in direct, measurable outcomes for children, families and schools.

Professional Services by School Psychologists

Practices That Permeate All Aspects of Service Delivery	Direct and Indirect Services for Children, Families, and Schools	
	Student-Level Services	Systems-Level Services
Data-Based Decision Making and Accountability	Interventions and Instructional Support to Develop Academic Skills	School-Wide Practices to Promote Learning
	Interventions and Mental Health Services to Develop Social and Life Skills	Preventive and Responsive Services
Consultation and Collaboration		Family–School Collaboration Services

Foundations of School Psychologists' Service Delivery		
Diversity in Development and Learning	Research and Program Evaluation	Legal, Ethical, and Professional Practice

Available online at: *http://www.nasponline.org/standards/2010standards.aspx*

Figure 19.1 Model of comprehensive and integrated school psychological services in the US

In summary, the 10 domains are as follows:

Data-based decision-making and accountability: knowledge of varied models and methods of assessment and data collection methods for identifying strengths and needs, developing effective services and programmes, and measuring progress and outcomes.

Consultation and collaboration: knowledge of varied models and strategies of consultation, collaboration, and communication applicable to individuals, families, groups, and systems.

Interventions and instructional support to develop academic skills: knowledge of biological, cultural, and social influences on academic skills, human learning, cognitive, and developmental processes; and evidence-based curricula and instructional strategies.

Interventions and mental health services to develop social and life skills: knowledge of biological, cultural, developmental, and social influences on behaviour and mental health, and evidence-based strategies to promote social-emotional functioning and mental health.

School-wide practices to promote learning: knowledge of school and systems structure, organization, and theory; general and special education; technology resources, and evidence-based school practices that promote learning and mental health.

Preventive and responsive services: Knowledge of principles and research related to resilience and risk factors in learning and mental health, services in schools and communities to support multi-tiered prevention, and evidence-based strategies for effective crisis response.

Family-school collaboration services: knowledge of principles and research related to family systems, strengths, needs, and culture; evidence-based strategies to support family influences on children's learning and mental health; and strategies to develop collaboration between families and schools.

Diversity in development and learning: Knowledge of individual differences, abilities, disabilities, and other diverse characteristics, including factors related to culture, context, and individual and role differences, and evidence-based strategies to enhance services and address potential influences related to diversity.

Research and program evaluation: knowledge of research design, statistics, measurement, varied data collection and analysis techniques, and programme evaluation sufficient for undertaking research and interpreting data in applied settings.

Legal, ethical, and professional practice: knowledge of the history and foundations of school psychology, multiple service models and methods; ethical, legal, and professional standards, and other factors related to professional identity and effective practice as school psychologists.

These domains could well form the basis of training programmes for school/educational psychologists. Similarly, Atkinson et al. (2015) have recently developed a competency framework for trainee educational psychologists in the UK to take account of the Children and Families Act (2014) extending statutory protections for young people with special educational needs and disabilities until age 25. A Delphi Technique was employed to obtain consensus amongst an expert reference group. Two rounds of an online questionnaire and a face-to-face meeting with educational psychologists (EPs) reporting expertise in working with post-16 learners enabled the identification of areas to be added to, or extended within, existing training curricula. The resultant competency framework is shown in Figure 19.2.

Section 1 – CONTEXT

1.1a	Demonstrates knowledge about the types of curricula, courses, programmes and pathways available to young people aged 16–25.
1.1b	Understands roles of key professionals in supporting young people aged 16–25.
1.1c	Demonstrates awareness of how educational psychologists can support young people aged 16–25 in achieving outcomes (including employment, health, community inclusion and independent living).
1.1d	Understands the socio-political context and pressures faced by young people aged 16–25 accessing further education (FE) and higher education (HE) including social and learning issues, mental health issues.
1.1e	Understands systems, services and resources to support young people aged 16–25, including Educational, Health and Social Care and Criminal Justice Systems.
1.2a	Verbal and non-verbal communications that are appropriate to the professional context, including in challenging interactions.
1.2b	Respectful of beliefs and values of colleagues within other professional sectors, even when inconsistent with personal values and beliefs.
1.2c	Working knowledge of multiple and differing world views, professional standards and contributions across different professional roles, contexts and systems.
1.2d	Appreciates and integrates perspectives from multiple professions.
1.3	Other areas to be addressed via an extension to existing curricula: Commissioning of services and provision mapping for 16–25 year olds; Working with families - understanding cultural differences in expectations of adulthood and issues of interdependence between young adults and parents

Section 2 – LEGISLATION

2.1	Demonstrates awareness of key legislation relating to the needs of young people aged 16–25, including the Mental Capacity Act (2005) and Disabled Students' Allowance (DSA).
2.2	Spontaneously and reliably identifies complex ethical and legal issues, analyses them accurately and proactively addresses them.
2.3	Other areas to be addressed via an extension to existing curricula: Knowledge of legislation such as the Autism Act (2009) and Autism Strategy (2010); Equality Act (2010); Children and Families Bills, Education, Health and Care (EHC) plans and tribunals; disability legislation (e.g. Carers and Disabled Children Act, 2000); Learning and Skills Act (2000); Children and Leaving Care Act (2000); Mental Health Act; consent and decision making – good practice guidance; guidance on safeguarding and sexual exploitation; Rose Review (2009); Valuing People (2010).

Section 3 – ASSESSMENT

3.1a	Able to select and use a broad range of psychological assessment methods, appropriate to the young person, environment and the type of intervention likely to be required.
3.1b	Demonstrates awareness of appropriate methods and protocols for assessing the mental health of young people aged 16–25.
3.1c	Understands additional responsibilities which may arise within the context of assessing post 16 learners (e.g. capacity to learn; diagnosis of a specific learning difficulty).
3.2	Selection of assessment tools reflects a flexible approach to exploring hypotheses about the needs of the young person in relation to achieving outcomes (including employment, health, community inclusion and independent living).
3.3	Other areas to be addressed via an extension to existing curricula: Specific/general learning difficulties, dyscalculia, autistic spectrum conditions (ASC), profound and multiple learning difficulties (PMLD), complex learning difficulties and disabilities (CLDD); mental health; adaptive behaviour assessments; dynamic assessment; client voice/young person's perspective; consultation and observation; assessing resilience; vulnerability and risk

Section 4 – INTERVENTIONS AND OUTCOMES

4.1a	Understands the principles of consent and shared decision making, including the Mental Capacity Act (2005).
4.1b	Understands the principles of person-centred planning.
4.1c	Demonstrates awareness of how interventions should support young people in achieving outcomes (including employment, health, community inclusion and independent living).
4.2a	Acts in the best interest of the young person and maintains a professional duty of care.
4.2b	Communicates clearly and effectively with clients.
4.3	Other areas to be addressed via an extension to existing curricula: coaching; goal-based outcome measurement; use of technology to support learning and independence; life skill development; behaviour, social and emotional development and management (including motivation); development of basic skills (reading and numeracy) in adulthood; systemic interventions and strategic planning in FE and post-16 services.

Section 5 – DEVELOPMENT

5.1a	Demonstrates knowledge of theories of adult learning.
5.1b	Recognises circumstances or behaviours which may be potentially challenging for young people aged 16–25 (including parenthood, development of sexuality, drug and alcohol use, chronic ill health) and which can increase vulnerability.
5.1c	Demonstrates knowledge of how to assess risk and resilience in relation to changing life circumstances.
5.2a	Demonstrates awareness of the effects of oppression and discrimination on young people and their families.
5.2b	Recognises ethical or safeguarding issues, knows how to address these appropriately and when to seek supervision.
5.2c	Recognises and discusses limits of own professional and legal knowledge.
5.3	Other areas to be addressed via an extension to existing curricula: developing independence; neuropsychological development; social and emotional development; vocational skills

Section 6 – TRANSITIONS

6.1a	Understands issues with might arise within the context of young people aged 16–25 making transitions between educational and/or vocational institutions, or into employment.
6.1b	Understands issues which might arise as a result of other life transitions (e.g. to independent living; parenthood; adulthood).
6.2a	Works collaboratively with others to support transitions made by young people aged 16–25.
6.2b	Within multi-disciplinary settings can work with other professionals to incorporate psychological knowledge into transition planning and monitoring.
6.3	Other areas to be addressed via an extension to existing curricula: professional roles and responsibilities.

Figure 19.2. Competency framework for trainee educational psychologists working with young people aged 16–25 (Atkinson et al., 2015)

19.8   Service Integration

It is clear from the material reviewed so far in this chapter that the challenge of educating SWSEN is a multidisciplinary enterprise, requiring the highest possible levels of collaboration, both at the individual level and at the system level. In the preceding section, for example, reference was made to educational psychologists and other agencies working with children engaging in joint planning around the five *Every Child Matters* outcomes.

According to Shaddock et al. (2009), a feature of leading practice throughout the world is a move towards 'integrated support', 'service integration' or 'wraparound services', all of which are concerned with the delivery of specialised services in a more coordinated and integrated manner (see, for example, Peterson, 2009). Such coordination can take place at an institutional level, at an agency level, or at a government level (see Chapter Twenty-one for a description of wraparound services).

In South Africa, the writer was impressed by the idea of institution-level support teams – an idea that many other countries have adopted in various forms. In the South African model, the primary function of these teams is to put in place 'properly co-ordinated learner and educator support services that will support the learning and teaching process by identifying and addressing learner, educator and institutional needs' (Department of Education, 2001).

A key to the success of such teams is the support and encouragement offered by the school principal and other senior leaders. The chief function of school-wide teams is to develop a school-wide supportive culture and policies on learners with special educational needs, as well as focussing on identifying and supporting individual learners. Such teams need a dedicated leader/facilitator and a recorder of decisions and plans, utilising advanced technology where available to facilitate communication (Ademan & Taylor, 1998).

According to Schaddock et al. (2009), the literature on service integration highlights the following factors:

- the active involvement of the child and support for parents as the primarily responsible party;
- conceptualisation of schools as the predominant living and learning environment for youth and as a community resource;

- co-location of services where possible;

- alignment of client assessments and case management; and

- clear and realistic objectives of service integration; leadership support; time allocation for joint planning; and clarity around administrative arrangements, funding and resources.

The next two chapters will examine service integration in more depth.

19.9   Summary

1. *Educating SWSEN requires collaboration among many people – several professionals and parents in particular.*

2. *Collaborative approaches to educating SWSEN are increasingly becoming embedded in education systems around the world. This is well illustrated in the sources of support for regular class teachers in their work with SWSEN in 23 European countries, which included school-based specialists, community-based agencies and special schools.*

3. *Successful collaboration depends on such factors as establishing clear goals, defining respective roles, adopting a problem-solving approach and establishing mutual trust and respect.*

4. *Co-teaching occurs in inclusive education settings when a general education teacher and a special education teacher combine their expertise to meet the needs of all learners in the class.*

5. *Paraprofessionals are generally inadequately appreciated, compensated, oriented, trained, supervised, and researched. Since 2001, paraprofessionals in the US have had more defined job descriptions and are expected to have a college-level qualification.*

6. *Teachers need to be trained to manage paraprofessionals and to ensure that SWSEN have quality time with teachers and the general curriculum.*

7. *Various countries have developed cadres of professionals to act as advisers/ consultants to teachers of SWSEN, providing advice and guidance to the general classroom teacher on the programme to be followed.*

8. *In many countries, educational psychologists are considered to play a vital role, not only in the education of SWSEN, but also in education more generally and in community contexts.*

9. *A feature of leading practice throughout the world is a move towards 'integrated support', 'service integration' or 'wraparound services', all of which are concerned with the delivery of specialised services in a more coordinated and integrated manner. Such coordination can take place at an institutional level, at an agency level, or at a government level.*

CHAPTER TWENTY

FULL-SERVICE SCHOOLS

The traditional borders between schools and their communities are undergoing dramatic change. Nowhere is this better illustrated than with the development of full-service (or extended) schools (FSSs) in many jurisdictions around the world. Other descriptors of essentially the same phenomenon as FSSs include school-linked services (Volpe et al., 1999), *collaborative school-linked services* (Wang, et al., 1995), *full-service community schools*, or simply *community schools* (Sailor & Skrtic, 1996).

FSSs hold out considerable promise for coordinating services for SWSEN and their families – the theme of the previous chapter.

20.1 Definition of Full-service Schools

In a nutshell, a FSS is a 'one-stop' institution that integrates education, medical, social and/or human services to meet the needs of children and youth and their families in a school's campus. As described by Dryfoos (1994), the earliest, and most cited, of its proponents, a FSS:

> integrates education, medical, social and/or human services that are beneficial to meeting the needs of children and youth and their families on school grounds or in locations which are easily accessible. A full-service school provides the types of prevention, intervention and support services children and families need to succeed...services that are high quality and comprehensive and are built on interagency partnerships which have evolved from cooperative ventures to intensive collaborative arrangements among state and local and public and private entities. (p.142)

20.2 Characteristics of Full-service Schools

FSSs vary in character according to the nature of the communities they serve and the availability and commitment of various agencies. They have several features in common, including those enumerated by the Scottish Office (1999) in its description of 'new community schools':

- *Focus on all the needs of all pupils at the school*. Children's social, emotional and health needs are considered, in addition to their academic needs.
- Engagement with families. Parents and family members are empowered to raise their expectations of their children and themselves through the development of a family support service in the school.

- *Engagement with the wider community.* Opportunities and mechanisms are provided to build the capacity of the local community.

- *Integrated provision of school education, informal as well as formal education, social work and health education and promotion services.* Inter-disciplinary teams are encouraged to intervene quickly and effectively in support of the child or the family.

- *Integrated management.* Management structures include a single reporting and accountability framework for all of the core services involved

- *Arrangements for the delivery of these services according to a set of integrated objectives and measurable outcomes.*

- *Commitment and leadership.* This commitment and leadership is essential at the political level and at all levels of management.

- *Multi-disciplinary training and staff development.* A programme should be developed involving the full range of staff working together to common goals and objectives in promoting the educational attainment and welfare of children in the school.

In establishing FSSs, careful consideration has to be given to a range of issues (Adelman & Taylor, 1997; Adelman & Taylor, 2002; Smith, 2000, 2004). These include (a) managing the programme, (b) learning to collaborate, (c) building from localities outwards, (d) avoiding the colonising effect of the school, (e) avoiding the dominance of the medical model, (f) financing, and (g) evaluating outcomes (Mitchell, 2012).

20.3   Examples of Full-service Schools

In Canada, the Toronto District School Board has made a commitment to support *all* schools to become FSSs. It defines FSSs as 'the coordinated delivery of health, education, prevention, and social services designed to improve the quality of life for students, families and communities. The programs and services are located inside an operational school...'(Toronto District School Board, 2010).

In England and Wales, the 2006 Green Paper, *Every Child Matters*, promoted 'full-service extended schools' (FSES), defined as: 'offering the community and their pupils a range of services (such as childcare, adult learning, health and community facilities) that go beyond their core educational function' (Section 2.20). The original aim was to support the development in every local authority of one or more schools to

provide a comprehensive range of services, including access to health services, adult learning and community activities, as well as study support and 8am to 6pm childcare. Most FSESs served areas of disadvantage. By the end of the initiative, 138 schools were involved, together with a further 10 funded through the London Challenge (Cummings et al., 2007). For a more recent summary of FSES in the UK, see Smith (2014).

In 1999, Scotland introduced its own version of the FSES – the 'new community schools' initiative. The then Secretary of State for Scotland, Donald Dewar, explained them as

> embodying the fundamental principle that the potential of all children can be realised only by addressing their needs in the round – and that requires an integrated approach by all those involved. Barriers to learning must be identified at the earliest stage, and intervention must be focused, planned and sustained. A range of services is necessary to assist children overcome the barriers to learning and positive development – family support, family learning and health improvement (Scottish Office, 1999, p.2).

20.4   Research into Full-service Schools

UK studies have reported positive results for FSSs. A report presented the findings from the final year of a three-year evaluation of a national full service extended schools (FSES) initiative (Cummings et al., 2007). Here are the main points.

- Schools broadly welcomed the FSES initiative. Issues of sustainability and the difficulties of partnership working, which had figured prominently in earlier stages of the evaluation, remained as potentially problematic in the third year. However, enough FSESs had found ways round these difficulties to suggest that they were far from insuperable.

- The FSES approach was impacting positively on students' attainments particularly in the case of those facing difficulties where there was improved engagement with learning.

- FSESs were generating positive outcomes for families and local people particularly where they were facing difficulties.

- A cost benefit analysis suggested that both the costs and benefits of FSES approaches were high. However, since benefits balanced or outweighed costs, and since they accrued particularly to children and families facing the greatest difficulties, FSES approaches were considered to represented a good investment.

- The FSES approach was commonly associated with schools having better relations with local communities and enjoying enhanced standing in their communities.
- The development of FSES approaches tended to rely heavily on the dynamism of head teachers and other school leaders.

These findings were supported by a later Ofsted survey of 20 FSES settings, which found that the major benefits to children and parents included enhanced self-confidence, improved relationships, raised aspirations and better attitudes towards learning (Ofsted, 2006). A more recent study examined the extent to which FSESs offered five core elements: (1) a varied menu of activities; (2) childcare 8am –6pm 48 weeks per year for primary schools; (3) parenting support including family learning; (4) swift and easy access to targeted and specialist support services; and (5) community access to school facilities. It was found that two-thirds of schools were offering all five elements and the remaining one-third were all offering at least some elements, with secondary schools being more likely than primary and special schools to be offering the full set of core activities. Two-thirds of schools offered extended services as part of a cluster or group of schools and there was evidence that working in clusters helped to develop links with community organisations and avoid duplication of effort. Seven in ten schools were targeting specific groups of pupils or families for support with extended services, most commonly economically disadvantaged families and pupils with disabilities or special educational needs (Carpenter et al., 2010).

According to a Scottish report on the 'new community schools', there was evidence of the following benefits to students: improved attendance rates, better attainment in examinations, improved employment prospects, less drug abuse, and fewer teenage pregnancies (Scottish Office, 1999). As well, these schools brought benefits to the wider community through a reduction in crime and violence, overall improved health within families, better access to services and resources which might not otherwise be readily available, more productive partnerships between schools, parents and the wider community and reduced parental mistrust of schools and teachers.

20.5   Summary

1. *The traditional borders between schools and their communities are undergoing dramatic change.*

2. *Full-service schools (FSSs) hold out considerable promise for coordinating services for SWSEN and their families.*

3. *FSSs are 'one-stop' institutions that integrates education, medical, social and/or human services to meet the needs of children and youth and their families in a school's campus.*

4. *FSSs vary in character according to the nature of the communities they serve and the availability and commitment of various agencies.*

5. *FSSs include the following features: (a) a focus on all the needs of all pupils at the school; (b) engagement with families;(c) engagement with the wider community; (d) integrated provision of school education, informal as well as formal education, social work and health education and promotion services;(e) integrated management;(f) the delivery of services according to a set of integrated objectives and measurable outcomes;and (g) multi-disciplinary training and staff development.*

6. *There are examples of FSSs in countries such as Canada, England and Wales, Scotland, and New Zealand.*

7. *Studies have reported positive results for FSSs, including impacting positively on students' attainments, particularly in the case of those facing difficulties; positive outcomes for families and local people particularly where they were facing difficulties; schools having better relations with local communities and enjoying enhanced standing in their communities; improved attendance rates; less drug abuse; and fewer teenage pregnancies.*

CHAPTER TWENTY-ONE

WRAPAROUND SERVICES [1]

Increasingly, in the past two decades or so, there has been a distinct trend towards 'joined–up thinking' in providing human services. For example, in the UK, Prime Minister David Cameron has pledged to end 'the deep divide between health and social care that is causing serious problems for vulnerable, often elderly, people and their families' (Campbell, 2011, p.1). In a speech to the NHS in June 2010, Cameron was quoted as saying

> I've listened to patients who are keen to make sure that, whatever happens, their care is joined up, that they don't have to put up with the frustrations they have today – with different appointments in different places with different people, all to discuss the same thing (Campbell, 2011, p.4).

In the international literature, depending on which agency's perspective is taken, the trend towards joined-up policies is reflected in such approaches to human services as *systems of care* (social welfare), *health promoting schools* (health), *full-service schools* (education: see next chapter), and a bio-psycho-social approach.

Wraparound was originally developed in the US in the 1980s as a means for maintaining youth with serious emotional and behavioural disorders (EBD) in their homes and communities. As described by Landrum (2011), these students have historically been educated in more restrictive environments than their peers with other disabilities, and this includes out-of-community placements for a disproportionate number of them. He goes on to note that partly in response to this pattern of services 'a trend that gained considerable traction in the 1990s was a heightened focus on comprehensive, or *'wrap-around' services designed to keep students with EBD in their home environments' (p.217)*. However, despite this notion gaining wide acceptance, 'a major shift in policy, funding, and systematic evaluation of such efforts has yet to be seen' (ibid.). Even so, wraparound has continued to expand in the US, both in uptake and in its scope. According to Bickman et al. (2003), at the time of their analysis 88% of U.S. states and territories were using some form of a 'wraparound' approach to provide services to children and adolescents with, or at risk of developing, severe emotional disorders. More recently, Bruns et al. (2011)

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[1] This chapter is based on Mitchell (2012) and Mitchell (2014b).

estimated that the wraparound process is available via nearly 1000 initiatives in nearly every one of the states in the US, with the number of them taking implementation statewide increasing every year.

A New Zealand review of intervention targeting challenging behaviour in children and youth with developmental disabilities, carried out by Meyer & Evans (2006), recommended the following with regard to wraparound services:

> Our review supports the provision of wraparound support and training services to all families with a child aged birth to eight years who has severe challenging behaviour, dependent upon voluntary participation and at a level appropriate for caregiver capacity and preferences. This is because of the overwhelming evidence of the effectiveness of structured educational interventions accompanied by family and peer intervention support programmes. Our review also supports the provision of wraparound community-based services for families with older children on an as-needed basis. This is because of the severe needs represented by this age if earlier interventions have not by that time resulted in the necessary reductions in serious challenging behaviour. Without wraparound community-based services, families and typical school environments are unlikely to be able to accommodate the levels of risk to safety represented to self and others (p.105).

21.1   Definition of Wraparound Services

In a nutshell, wraparound is a system-level intervention that quite literally aims to 'wrap' existing services around children and young people and their families to address their problems in an ecologically comprehensive way. 'The wraparound philosophy posits that direct intervention in the service system to provide individualized service planning will lead indirectly (via specific services) to positive change within the child and family' (Stambaugh et al., 2007, p.144). It means developing 'a sufficient range of services to meet the needs of those served' (Adelman & Taylor, 1997, p. p.410).

The most authoritative definition of wraparound can be found in the writings of Eric Bruns, Janet Walker and their colleagues at the National Wraparound Initiative in the US (Bruns et al., 2004; Bruns et al., 2006a; Bruns et al., 2006b; Bruns et al., 2007; Bruns & Suter, 2010; Bruns & Walker, 2010; Bruns & Walker, 2011; Walker & Bruns, 2006). In an overview of the wraparound process, for example, Bruns & Walker (2010) defined it as

> an intensive, individualized care planning and management process for children and adolescents with complex mental health and/or other needs. Wraparound is often implemented for young people who have involvement in multiple child-serving agencies and whose families would thus benefit from coordination of effort across these systems. Wraparound is also often aimed at

young people in a community who, regardless of the system(s) in which they are involved, are at risk of placement in out-of-home or out-of-community settings, or who are transitioning back to the community from such placements (p.1).

In their various writings, Bruns and Walker, as well as Eber (2001) and Eber et al. (1997), emphasise that wraparound is not a treatment per se. Rather, as noted in the above definition, it is a process. As such, it aims to achieve positive outcomes through several mechanisms, such as:

1. employing a structured and individualised team planning process;
2. developing plans that are designed to meet the identified needs of young people and their caregivers and siblings;
3. addressing a range of life areas;
4. emphasising team-based planning that aims to develop the problem-solving skills, coping skills, and self-efficacy of the young people and their families;
5. utilising skilled facilitators to guide teams through a defined planning process;
6. integrating young people into their communities and building their families' natural social support networks;
7. employing culturally competent practices;
8. recognising the strengths of young people and their families;
9. employing evidence-based treatments within the process;
10. monitoring progress on measurable indicators of success and changing the plan as necessary;
11. having access to flexible funding; and
12. focusing on, and being accountable for outcomes (Bruns et al., 2004; Bruns & Walker, 2010; Bruns et al., 2011; Eber, 2001; Kolbe et al., 1999).

21.2   The Wraparound Process

According to Bruns & Walker (2010), during the wraparound process, a team of individuals who are relevant to the life of the child or youth (e.g., family members, members of the family's social support network, service providers, and agency representatives) collaboratively develop an individualised plan of care, implement it, monitor its efficacy and work towards its success over time. They emphasise that 'a hallmark of the wraparound process is that it is driven by the perspective of the family and the child or youth. The plan should reflect their goals and their ideas about what

sorts of service and support strategies are most likely to be helpful to them in reaching their goals' (p.2). According to Eber et al. (1997), a major advantage of applying the wraparound process in the school domain is the availability of well-trained personnel and access to supportive services. In addition, 'school is a place where children are available for a significant part of the weekday, and is a logical place to deliver and coordinate intervention' (p.552).

Bruns and his colleagues have developed a Wraparound Fidelity Index that reflects the above processes (Bruns et al., 2006b), while Miles, Brown & and the National Wraparound Initiative Implementation Workgroup (2011) have published a detailed *Wraparound implementation guide: A handbook for administrators and managers*. As well, Walker & Bruns (2008) have described phases and activities of the wraparound process.

Implementing and sustaining wraparound is both complex and difficult, according to several of its proponents. For example, Bruns et al. (2006a) refer to such challenges as:

- re-negotiating relationships among providers, consumers (i.e., families) and the community
- developing a single, comprehensive plan that defines how each agency involved will work with the child and family;
- funding the plan;
- satisfying the mandates of agencies with different missions; and
- managing different, perhaps conflicting, priorities between families and agency-based professionals.

Clearly, for wraparound to work, there needs to be clarification of roles, a coordinating mechanism (often in the person of a facilitator), sound selection and training of the professionals involved, data-based decision-making, and adequate and flexible funding, to mention only the top priorities.

21.3   Evidence on Wraparound Services

The strength of evidence that wraparound can positively affect child and adolescent outcomes is rather mixed, but trending in favour of wraparound, compared with more traditional approaches. In a meta-analysis, Suter & Bruns (2009) identified seven outcome studies comparing wraparound and control groups. They found effect sizes as follows: living situations (0.44), mental health outcomes (0.31), overall youth

functioning (0.25), school functioning (0.27) and juvenile justice–related outcomes (0.21). More rigorous evaluation is needed in the future.

Positive results have been reported by Myaard et al. (2000) in a multiple-baseline study of four adolescents with serious mental health issues. They present evidence that the wraparound process can result in substantial changes that persist over time, while Eber & Nelson (1997) found that improved emotional and behavioral functioning, as well as academic performance, was obtained with students receiving services through a wraparound approach. In a third more recent study, Bruns et al. (2006a) carried out a matched comparison study of youths in child welfare custody over a period of 18 months, 33 in wraparound vs. 32 receiving usual mental health services. After 18 months, 27 of the 33 youth who received wraparound moved to less restrictive environments, compared to only 12 of the 32 comparison group youth. Mean scores on a Child and Adolescent Functional Assessment Scale for youth in the wraparound approach improved significantly across all waves of data collection (6, 12, 18 months) in comparison to the traditional services group. More positive outcomes were also found for the wraparound cohort on school attendance, school disciplinary actions, and grade point averages. No significant differences were found in favour of the comparison group. A fourth study also reported positive findings in favour of wraparound approaches (Pullman et al., 2006). This was a matched comparison study (>2 years) of youth involved in juvenile justice and receiving mental health services: 110 in wraparound vs. 98 in conventional mental heath services. Youths in the comparison group were three times more likely to commit a felony offense than youths in the wraparound group. Youth in the latter group also took three times longer to recidivate than those in the comparison group. According to the authors, a previous study of theirs showed 'significant improvement on standardised measures of behavioural and emotional problems, increases in behavioural and emotional strengths, and improved functioning at home, at school, and in the community' (p.388) among wraparound youth. A fifth study, by Mears et al. (2009), compared outcomes for 93 youth receiving wraparound with 30 receiving traditional child welfare case management. Those in the wraparound group showed significantly greater improvement on a functional assessment scale and greater movement toward less restrictive residential placements. In a sixth study, Rauso et al. (2009) compared the placement outcomes and associated costs of children who graduated from

wraparound in Los Angeles County to similar children who were discharged successfully from residential care settings. Of those discharged from wraparound, 58% had their cases closed to child welfare within 12 months, compared with only 16% of those discharged from the residential care settings. Moreover, 70% of the former were placed in less restrictive settings after 12 months, compared with 70% of the latter who were placed in more restrictive environments. And, finally, the mean post-graduation costs for the wraparound group was $10,737, compared with $27,383 for the residential care group.

Somewhat less positive findings were reported by Bickman et al. (2003) in their study of treatment outcomes for children needing mental heath services. In their comparison of a wraparound group and a 'treatment as usual' group, Bickman et al. found that while the former received greater continuity of care, there were no differences between the two groups on such measures as their functioning, symptoms, and life satisfaction. Possible reasons for the apparent failure of the wraparound approach to affect clinical outcomes are advanced. Firstly, it is possible that the 'logic chain between the types of services introduced in wraparound and clinical outcomes is too long'; secondly, 'the ability to assign youth to appropriate services is not sufficiently well developed'; thirdly, the 'services delivered to families [within the wraparound model] may not have been effective.' (p.152) Elsewhere, Stambaugh et al. (2007) put forward a fourth explanation why research on wraparound is producing mixed findings. They note that wraparound is difficult to study in a controlled way because treatment plans are individualised for each individual: 'It is possible that some youth in wraparound have access to evidence-based treatments targeted for their specific problems while others may not because of a lack of such treatment or other barriers' (p.151).

In a similar vein to Bickman et al. (2003), Clark et al. (1998) drew tentative conclusions from their comparison of foster-care adolescents in wraparound (N=54) and in standard practice foster care control conditions (N=78). Results showed significantly fewer placement changes for youths in the wraparound program, fewer days on runaway, and fewer days incarcerated. In approximately half of the comparisons there were no differences in outcomes, including on measures of internalising behaviours. The effects on externalising behaviours were more complex,

with males seeming to benefit from the wraparound programme and females experiencing a detrimental effect.

As noted by Bickman et al. (2003), other researchers draw tentative conclusions as to the efficacy of the wraparound approach. For example, Oliver et al. (1998) conclude that the relationship between levels of wraparound expense and favourable client outcomes remains to be determined. Similarly, Borduin et al. (2000) conclude that controlled evaluations of short- and long-term outcomes are needed before more definite conclusions can be drawn about the efficacy of wraparound services. Or, as expressed by Bickman et al. (2003), 'the picture remains unclear because few studies on wraparound exist and even fewer are methodologically sound' (p.138).

The preceding studies have compared broad systems-levels approaches, i.e., traditional organisational practices with wraparound. This can be portrayed as comparing apples with apples. An example of a comparison in which apples seem to be being compared with oranges can be found in a study by Stambaugh et al. (2007). In a system-of-care demonstration site in the US, 12 years-old children received wraparound-only, multisystemic therapy (MST) only, or a combination of both approaches. (MST comprised intensive home- and community-based family therapy directed at children and adolescents with emotional and behavioural problems.) All three groups improved over the 18-month study period, but the MST-only group demonstrated more clinical improvement than the other two groups. The researchers concluded that 'targeted, evidence-based treatment may be more effective than system-level intervention alone' (p.143). These findings suggest that what actually goes on in a wraparound approach is critical to its success, which should not be all that surprising..

21.4   A Comprehensive Ecological Model

Elsewhere, the writer has put forward a comprehensive ecological model to provide a theoretical basis for the wraparound approach (Mitchell, 2012). This model is based on three underlying principles:

- Families comprise systems which are, in turn, embedded in a series of other systems –schools, communities, social, health, justice, recreational, political, environmental…

- Such systems should be 'joined up', which involves both horizontal and vertical integration. Horizontal integration requires linking systems at the same level to ensure consistency and compatibility of approach. Vertical integration requires linking more immediate, or proximal, systems with the more distal systems in which they are embedded.

- The whole is greater than the sum of its parts, a principle that requires that systems within different levels work together cohesively and with common purpose.

The comprehensive ecological wraparound model posits that in developing joined-up services for SWSEN, it is essential to see them as being embedded in various systems: their families, classrooms, schools and communities.

The model draws upon general systems theory (von Bertalanffy, 1962) and Bronfenbrenner's ecological model of child development (Bronfenbrenner, 1979).

General systems theory. At its broadest level, the general systems theory, first advanced by von Bertalanffy (1962), can be seen as a theoretical model for explaining, predicting and controlling phenomena. It is presented in the current review as an elegant way of understanding the interrelatedness of the social variables involved in developing services for students with complex needs and their families.

Anderson et al. (1999) have presented a useful definition of systems as being organised wholes comprising component parts that interact in a distinct way and endure over time.

According to von Bertalanffy (1962), Greene (2002), Anderson et al. (1999), and Norlin et al. (2002), general systems theory has the following features (implications for the present review being noted in parentheses):

- a social system can be studied as a network of unique, interlocking relationships with discernible structural and communication patterns; *(families, classrooms, schools, health services, social welfare agencies, etc. are all social systems)*

- all systems are subsystems of other, larger systems; *(for example, classrooms are part of the wider school system, which, in turn is part of the education system, which are embedded in a wider regional, national and global society)*

- boundaries of varying degrees of permeability give a social system its identity and focus as a system, distinguishing it from other social systems with which it may interact;

  (some boundaries between systems, e.g., educational and health agencies may be quite impermeable as their participants seek to maintain their distinct identities)

- there is an interdependency and mutual interaction between and among social systems;

  (it is important that in catering for SWSEN, various players recognise their interdependency and avoid silo thinking)

- a change in any one member of the social system affects the nature of the social system as a whole;

  (SWSEN and/or their families can disrupt the wider systems to which they belong; for example, such students can be the source of major disruptions to a classroom or school system)

- social systems vary in the extent to which they are purposive, goal-directed and in constant states of interchange with their environments;

  (some social systems, e.g. dysfunctional families, appear to lack purpose and goals and lack exchanges with their environments, such as schools)

- change within or from without a social system that moves the system to an imbalance in structure will result in an attempt by the system to re-establish that balance;

  (adoption of the joined-up thinking advocated in the present review, by its very nature, creates an imbalance in the systems it impacts and may lead to efforts to retain the status quo or it may lead to efforts to create a new balance)

- systems may be open or closed, depending on the degree to which they engage in exchanges with their environment (both receiving inputs and delivering outputs);

  (families, classrooms, schools can vary in the extent to which they are open)

- systems reach a 'steady state', or equilibrium, with respect to their exchanges with the environment;

  (changing the equilibriums reached by various systems reviewed in the present document may face resistance)

Bronfenbrenner's ecological model. Bronfenbrenner's ecological model is well known and has been very influential in conceptualising the influences on child development (Bronfenbrenner, 1979). As will be seen below, this model forms a special case of the general systems theory. In an adapted form, it will form the basis of the present chapter.

In essence, Bronfenbrenner argues that child development takes place through processes of progressively more complex interactions between an active child and the persons, objects, and symbols in its immediate environment over an extended period of time (Bronfenbrenner, 1998). In these processes, the child affects as well as being affected by the settings in which it spends time. In other words, 'there is reciprocal causation between the individual and the environment.' (McElroy et al., 1988, p.354)

Bronfenbrenner identifies four levels of settings, which are nested rather like Russian dolls: the *microsystem* (the family or classroom), the mesosystem (two microsystems in interaction), the *exosystem* (external environments that indirectly influence development, e.g., parental workplace), and the *macrosystem* (the larger socio-cultural context, such as the individual's ethnicity, culture and belief systems). Figure 21.1 presents his original ecological model of human development, but note it does not directly portray the mesosystem. In his later writings he added a fifth system, which he called the *chromosystem,* which referred to the evolution of the external systems over time. Note, too, that in his later writings, Bronfenbrenner (1988) acknowledged that he had neglected to place the individual child at the centre of its own ecological world; the figure below takes this into account.
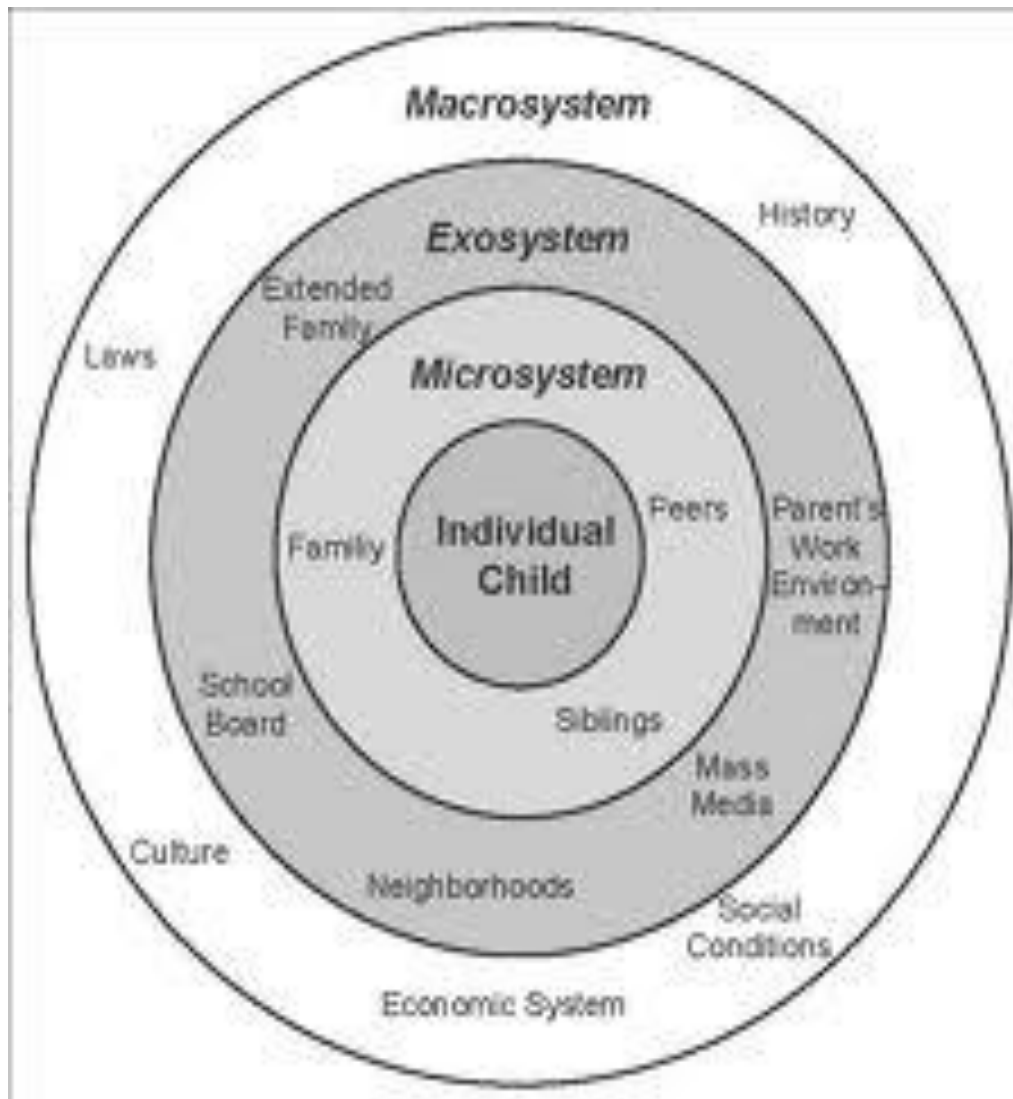
Figure 21.1. Bronfenbrenner's ecological model of child development

In keeping with the joined-up philosophy adopted in this review, a more appropriate portrayal of the ecological model would be in the form of a spiral (Figure 21.2). This has the advantage of removing the barriers between each level of the system as portrayed in Figure 21.1, making for more fluid connections among the various levels of the system.
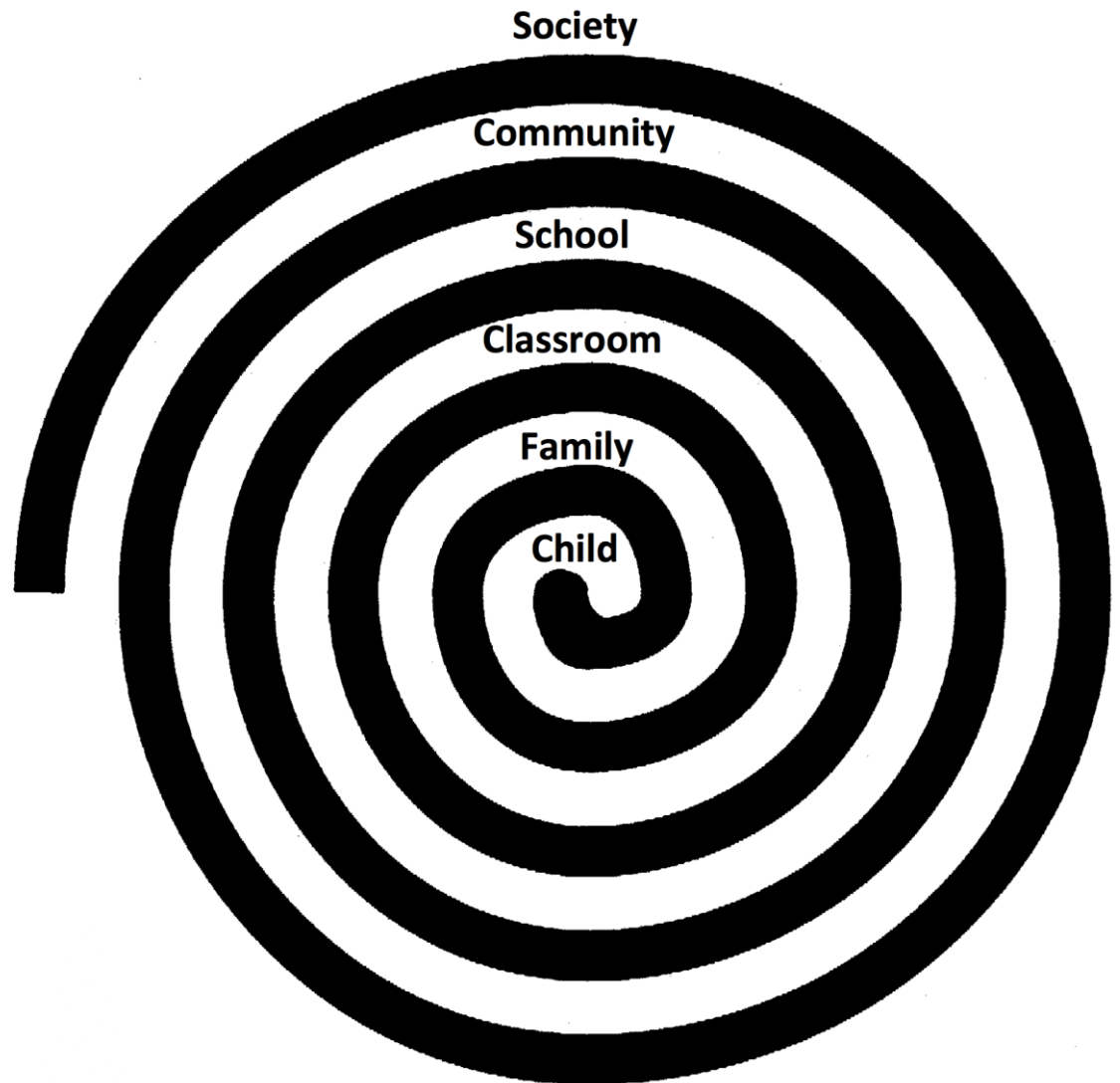
Figure 21.2 A new ecological model

21.5   Summary

1. *Increasingly, in the past two decades or so, there has been a distinct trend towards 'joined–up thinking' in providing human services.*

2. *This trend calls for radical, transforming systems change manifested in the move from fragmentation to coordinated or integrated intervention and from narrowly-focused and specialist-oriented, 'silo' services to comprehensive, general approaches.*

3. *Wraparound is a system-level intervention that quite literally aims to 'wrap' existing services around children and young people and their families to*

address their problems in an ecologically comprehensive and coordinated way. The strength of evidence that wraparound can positively affect child and adolescent outcomes is rather mixed, but trending in favour of wraparound, compared with more traditional approaches.

4. *In developing joined-up services for children and young persons with SWSEN, it is essential to see them as being embedded in various systems: their families, classrooms, schools and communities.*

5. *A general systems theory has the following features:*

- *a social system can be studied as a network of unique, interlocking relationships with discernible structural and communication patterns;*

- *all systems are subsystems of other, larger systems;*

- *boundaries of varying degrees of permeability give a social system its identity and focus as a system, distinguishing it from other social systems with which it may interact;*

- *there is an interdependency and mutual interaction between and among social systems;*

- *a change in any one member of the social system affects the nature of the social system as a whole;*

- *social systems vary in the extent to which they are purposive, goal-directed and in constant states of interchange with their environments;*

- *change within or from without a social system that moves the system to an imbalance in structure will result in an attempt by the system to re-establish that balance;*

- *systems may be open or closed, depending on the degree to which they engage in exchanges with their environment (both receiving inputs and delivering outputs);*

- *systems reach a 'steady state', or equilibrium, with respect to their exchanges with the environment;*

6. *Bronfenbrenner identified four levels of nested settings: the microsystem (the family or classroom), the mesosystem (two microsystems in interaction), the exosystem (external environments that indirectly influence development, e.g., parental workplace), and the macrosystem (the larger socio-cultural context, such as the individual's ethnicity, culture and belief systems).*

7. *The present review adapts Bronfenbrenner's model, drawing attention to: the child in the family, the child in the inclusive classroom, and the child in the whole school.*

CHAPTER TWENTY -TWO

PARENT INVOLVEMENT[1]

Parents[2] play important, if not critical, roles in educating and supporting SWSEN. They are first and foremost parents, with all the rights and responsibilities of that role, but they are also sources of information, partners in designing and implementing programmes for their children, and 'consumers' of education (Hornby, 2000). As well, some of them may be in need of direct support, in the form of training, counselling or psychiatric care.

Parents have played and continue to play a critical role in advocating on behalf of their children for better educational services. For example, one of the earliest advocates of family involvement in rehabilitation and special education, Dybwad (1982) recounted how parents of children with mental retardation banded together in many countries during the 1940s and 1950s to demand justice for their children and an end to discriminatory practices. For a discussion of providing parents of children with advocacy training, see Burke (2013).

Parents are most probably the only people who are involved with their child's education throughout their entire school years. They are thus likely to have great interest in their child's learning overall and be the most affected by the outcomes of any schooling decisions. Parents know their child's development and the factors that may be responsible for their special educational needs better than anyone else. They often have insights into what motivates their child and which teaching and management strategies are most effective. Thus, in the US, for example, it is mandatory for parents to be involved in the development of Individual Education Plans and they have due process rights to enforce such plans (Singer , 2011).

Working with parents increases the likelihood of consistency in expectations of behaviour at home and at school. It also increases the opportunities for reinforcing appropriate behaviours and increasing the range of reinforcers that are available to do

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[1] This chapter draws on Mitchell (2014b, chapter 7) and Mitchell et al. (2010), as well as other sources mentioned in the text.

[2] The term 'parent' encompasses a range of people, including natural parents, adoptive or foster parents, guardians, extended family, carers and caregivers. Here 'parent' will be used to cover all categories of such relationships.

this. Children will obtain positive messages about the importance of their education if they see their parents and educators working together.

Special consideration must be given to disabled parents' involvement in their children's education. A recent UK study reported on findings from 24 case studies involving parents who had a range of impairments. Common themes included the perceived importance and benefits of involvement, the need for effective communication and access, and the significance of an inclusive school ethos (Stalker et al., 2011).

22.1   The Story So Far

So far in this review, parents have been mentioned in a range of contexts. In brief, the following comments have been made:

- Educators should create collaborative relationships with students and their families, by recognising parents/family members as valuable partners in promoting academic progress and by working with them from a posture of cultural reciprocity (Chapter Fourteen).
- The strong focus on disability, difference and deficit is upsetting for parents and has deleterious effects on inclusive culture and practice (Chapter Four).
- Parents should be involved in the decision-making processes in Response to Intervention (Chapter Seven).
- Many parents of SWSEN do not have the knowledge, skills and contacts to comprehend an increasingly deregulated system (Chapter Eight).
- The coexistence of inclusive education provisions and special schools (which is the case in almost every country) suggests that choices must be exercised as to where SWSEN are 'placed'. In this process, the relative weight given to the preferences of SWSEN and their parents and those who administer education systems constitutes a major point of tension (Chapters Thirteen and Seventeen).
- Subsidiary issues centre on how parents negotiate any choices that are at least nominally available to them and how they can be assisted to make informed choices (Chapter Eight).
- In countries where funds are tied to individual children, there is more evidence of strategic behaviour by parents and teachers to secure resources (Chapter Nine).

- Voucher-based funding models provide a direct public payment to parents to cover their child's public or private school costs. The payment can be made either directly to the parents or to a school on behalf of the parents. The aim of these models is to increase parental choice and to promote competition between schools in order to increase the quality of educational services (Chapter Nine)

- A 1996 meta-analysis of the effects of behavioural parent training on anti-social behaviours of children yielded a significant effect size of 0.86 for behaviours in the home. There was also evidence that the effects generalised to classroom behaviour and to parents' personal adjustment (Chapter Twelve).

- In the UK, the SEN and Disability Act 2001 made it clear that where parents want a mainstream place for their child, everything possible should be done to provide it (Chapter Thirteen).

- Countries with more segregated provision report parental pressure for inclusion and there is positive parental support in countries with inclusive education policies. However, parents whose children have more severe special needs are said to prefer segregated settings for their children (Chapter Seventeen).

- Developing school support networks has been identified as an important facilitator of inclusive education, as has encouraging a strong sense of community with professionals and paraprofessionals working collaboratively with parents (Chapter Thirteen).

- Parents play a critical role in bestowing social validity on inclusion and in facilitating its implementation (Chapter Thirteen).

- Research indicates that parents of children with disabilities believe that inclusion promoted acceptance by non-disabled peers and helped their children's social, emotional and academic development. Concerns include a loss of access to specialised personnel (Chapter Thirteen).

- Parents of children without disabilities value their children's greater awareness of others' needs and their enhanced acceptance of human diversity through inclusion. Some, however, were concerned that their children would not receive sufficient assistance from their teachers and they might emulate inappropriate behaviours of children with disabilities (Chapter Thirteen).

- Australian parents continue to want more special units in primary and secondary schools, not fewer and strongly support a continuum of services (Chapter Seventeen).

- One of the roles of SENCOs in the UK is 'Consulting, engaging and communicating with colleagues, parents and carers and pupils to enhance pupils' learning and achievement' (Chapter Nineteen).

22.2   Levels of Parental Involvement

Five different levels of parent involvement have been identified (Department of Education 1988):

Level I: Being informed. At this most basic level, the school informs parents about its programmes and, in turn, is asked for information.

Level 2: Taking part in activities. At this level, parents are involved in activities, but to a limited extent. For example, they may be invited to attend various functions.

Level 3: Participating in dialogue and exchange of views. Here, parents are invited to examine school or classroom goals and needs.

Level 4: Taking part in decision-making. At this level, parents are asked about their views when decisions affecting their child are being made. A clear case of this level of involvement is the IEP conference and when parents exercise choice as to their child's placement.

Level 5: Having responsibility to act. This is the highest level, with parents making decisions in partnership with the school and being involved in both planning and evaluating parts of the school programme. A good example of this would be involving the parents of children with special educational needs in formulating and evaluating school policies. Another example of involvement at this level is the role that parents may play as tutors for their own children.

As well, as we shall see in a later section of this chapter, many parents of SWSEN benefit from behavioural parent training, parent-child interaction therapy and the Triple P Positive Parenting programme.

22.3   Policies on Parent Involvement

Many countries have legislation and/or policies on parent involvement in the education of SWSEN, at a minimum their participation in decisions regarding their

children's placements and their IEPs. In this section, consideration will be given to just one country as an example: the UK.

In the UK, there are quite explicit prescribed statutory duties and guidance about various roles and responsibilities concerning parents' involvement in the education of their children with special educational needs. The former are expressed in the Special Educational Needs and Disability Act 2001 and the Education Act 1996, and the latter in the *Special Educational Needs Code of Practice of 2001 (hereafter referred to as the Code).*

One of the fundamental principles underpinning the *Code* is stated as 'parents have a vital role to play in supporting their child's education' (p.8). Similarly, critical success factors include 'special education professionals and parents work in partnership' and 'special education professionals take into account the views of individual parents in respect of their child's particular needs' (ibid., emphasis in original).

Key principles in communicating and working in partnership with parents included the following guidance for professionals:

- acknowledge and draw on parental knowledge and expertise in relation to their child
- focus on the children's strengths as well as areas of additional need
- recognise the personal and emotional investment of parents and be aware of their feelings
- ensure that parents understand procedures, are aware of how to access support in preparing their contributions, and are given documents to be discussed well before meetings
- respect the validity of differing perspectives and seek constructive ways of reconciling different viewpoints
- respect the differing needs parents themselves may have, such as a disability, or communication and linguistic barriers
- recognise the need for flexibility in the timing and structure of meetings.

The different roles and responsibilities of local education authorities (LEAs) and schools include the following, as outlined in Chapter 2 of the Code:

LEAs

- have a statutory duty to provide parent partnership services;

- should ensure that parents and schools receive clear information about services and providers (including where relevant the involvement of voluntary groups);

- have responsibility for the provision of a wide range of information material for parents;

- should inform all parents that all maintained schools are required to publish their SEN policy; and

- have a statutory duty to provide disagreement resolution arrangements that can demonstrate independence and credibility in working towards early and informal dispute resolution.

Schools

- should recognise that teachers, SENCOs, pastoral and other staff all have an important role in developing positive and constructive relationships with parents;

- should accept and value the contribution of parents and encourage their participation;

- make every effort to identify how parents prefer to work with schools, with the recognition that some families will require both practical help and emotional support if they are to play a key role in the education of their children;

- should seek to develop partnerships with local parent support groups or voluntary organisations;

- have a statutory duty to publish their SEN policy;

- should have a clear and flexible strategy for working with and encouraging parents to play an active role in the education of their children; and

- in publishing their SEN policy, should seek to ensure it is presented in parent friendly formats.

The Parent Partnership Service[1] should:

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[1] As of 2009, over 2000 Parent Support Advisors had been employed to work across over 8000 schools (Training and Development Agency for Schools, 2009). Parent Support Advisers are based in schools to support parents and carers. Their main roles are to: support parents in engaging with their child's learning and development, support parents in developing their parenting skills, and provide accessible information and guidance.

- provide flexible services for parents, including access to other agencies and organisations, and, for all parents who want one, access to an Independent Parental Supporter;

- provide accurate, neutral information on parents' rights, roles and responsibilities within the SEN process, and on the wide range of options available, to enable them to make informed decisions;

- provide training for parents, Independent Parental Supporters and school staff;

- work with schools, LEA officers and other agencies to help them develop positive relationships with parents;

- establish and maintain links with voluntary organisations; and

- ensure that parents' views inform and influence the development of local SEN policy and practice.

Despite these policies, a recent UK survey found that 72% of parents wanted more involvement in their children's schooling (Department for Education & Skills, 2007).

22.4 Parents' Participation on the IEP Process

In 2010, the writer and his colleagues at the University of Canterbury (Mitchell et al., 2010) completed a review of the literature on IEPs, which contained a section on parental involvement. In summary, the following points were made from the international literature:

- Professionals need to build a partnership with family members based on mutual respect, open communication, shared responsibility, and collaboration (Zhang & Bennett, 2003).

- Effect sizes for the impact of parent involvement on children's academic achievement have been calculated from meta-analyses to be 0.51 (Hattie, 2009).

- There is an extensive research literature on parental participation in the IEP process, which indicates that the reality of parental participation is problematic (e.g., Garriott et al., 2000; Harry et al., 1995).

- The gap between the rhetoric and the reality of parent involvement is considered to be because there are various barriers to the meaningful

participation of parents, both generically and those specifically related to IEPs (Hornby & Lafaele, 2011).

- Strategies for overcoming barriers and facilitating the participation of parents in the IEP process are summarised, but no studies could be located which evaluated whether implementing such strategies has led to increased participation of parents in the IEP process.

22.5 Parent Training Programmes

As well as participating in decisions regarding their child's placement and in the design of IEPs, parents of SWSEN may be offered various types of programmes aimed at increasing their skills in working with their children. For reviews of some of the vast literature on parent management training, see, for example, Cooper & Jacobs (2011).

Parent training (general). A 1998 review of treatments of children and adolescents with conduct disorders, covering the period from 1966 to 1995, found 29 well-designed studies (Brestan & Eyberg, 1998). Parent training (unspecified) was one of two strategies that were identified as being 'well-established'.

A recent, authoritative, Cochrane review focused on behavioural and cognitive- behavioural group-based parenting programmes for early-onset conduct problems (Furlong et al., 2012). It is worth quoting at length:

> This review includes 13 trials (10 randomised control trials and three quasi-randomised trials), as well as two economic evaluations based on two of the trials. Overall, there were 1078 participants (646 in the intervention group; 432 in the control group). The results indicate that parent training produced a statistically significant reduction in child conduct problems, whether assessed by parents or independently assessed. The intervention led to statistically significant improvements in parental mental health...and positive parenting skills ... Parent training also produced a statistically significant reduction in negative or harsh parenting practices according to both parent reports and independent assessments....Moreover, the intervention demonstrated evidence of cost-effectiveness. When compared to a waiting list control group, there was a cost of approximately $US2500 (GBP 1712; EUR 2217) per family to bring the average child with clinical levels of conduct problems into the non-clinical range. These costs of programme delivery are modest when compared with the long-term health, social, educational and legal costs associated with childhood conduct problems....

In a well-designed study comparing the impact of several approaches, 159 families were randomly assigned to one of six conditions: parent training alone (PT);

child training alone (CT); parent training plus teacher training (PT+TT); child training plus teacher training (CT+TT); parent and child training combined with teacher training (PT+CT+TT); and a wait-list comparison group (Webster-Stratton, et al., 2004). The primary referral problem was oppositional defiant disorders that had been occurring for at least six months; the children were aged 4-8 years. Reports and independent observations were collected at home and school. Following the 6-month intervention, all treatments resulted in significantly fewer conduct problems. Children showed more pro-social skills with peers in the CT conditions than in the control conditions. All PT conditions resulted in less negative and more positive parenting for mothers and less negative parenting for fathers than in the control group. Mothers and teachers were also less negative than controls when children received CT. Adding TT to PT or CT improved intervention outcome in terms of teacher behaviour management in the classroom and in reports of behaviour problems.

A recent review of training programmes for parents of children with autism spectrum disorders focused on 11 single subject studies, which included 44 participants (Patterson et al., 2012). The results indicated that several interventions demonstrated positive effects for both parent and child outcomes. With regard to child outcomes, several studies indicated large intervention effects for verbal language, vocalisations and imitation. Families trained in 'pivotal response treatment' (PRT) showed the greatest long term, flexible uptake of intervention strategies (Koegel et al., 2002; Symon, 2005). The PRT intervention model is derived from the principles of applied behaviour analysis, but rather than targeting individual behaviours it targets 'pivotal' areas of a child's development such as motivation, responsivity to multiple cues, self-management, and social initiations. By targeting these critical areas, PRT results in widespread, collateral improvements in other social, communicative, and behavioural areas that are not specifically targeted

Four parent training programmes stand out:

Behavioural parent training. In this programme (sometimes referred to as *parent management training*), parents are typically helped to use effective behavioural management strategies in their homes. This strategy is often based on the assumption that children's conduct problems result from maladaptive parent-child interactions, such as paying attention to deviant behaviour, ineffective use of commands, and harsh punishments. Thus, parents are trained to define and monitor

their child's behaviour, avoid coercive interchanges and positively reinforce acceptable behaviour by implementing developmentally appropriate consequences for their child's defiance. Such parent training is typically conducted in the context of group or individual therapy. It includes a mixture of didactic instruction, live or videotaped modeling, and role-plays. As its name implies, an important element of behavioural parent training is the effective administration of reinforcement. This involves reinforcement being administered contingently (i.e., after the target behaviour), immediately, frequently and with a variety of high quality reinforcers that are meaningful to the child. As well, such techniques as shaping and prompting are used. For reviews of some of the vast literature on parent management training, see, for example, Kazdin & Weisz (1998) and McCart et al. (2006).

Parent-child interaction therapy. This strategy is closely related to behavioural parent training, but without the close adherence to behavioural principles. It is usually a short-term intervention programme aimed at parents of children with a broad range of behavioural, emotional or developmental problems. Its main aim is to help parents develop warm and responsive relationships with their children and develop acceptable behaviours. It includes non-directive play, along with more directive guidance on interactions, sometimes using an ear microphone.

The Incredible Years Programme. The Incredible Years programme is a variant of Behavioural Parent Training, but includes programmes for children and teachers, as well as parents. Aimed a children aged from birth to 12 years and their parents, Incredible Years comprises a series of two-hours per week group discussion (a minimum of 18 sessions for families referred because of abuse and neglect). The programme contains videotape modelling sessions, which show a selection from 250 vignettes of approximately 2 minutes each in which parents interact with their children in both appropriate and inappropriate ways. After each vignette, the therapist leads a discussion of the relevant interactions and solicits parents' responses. Parents are taught play and reinforcement skills, effective limit- setting and nonviolent discipline techniques, problem-solving approaches promoting learning and development, and ways of becoming involved in their children's schooling (Webster-Stratton & Reid, 2012).

In addition, *Incredible Years* has an add-on programme to facilitate parents in supporting their child's schoolwork. There is also a classroom programme, with over

60 lesson plans for all age ranges of children (Webster-Stratton & Reid, 2004), plus a teacher-training programme in classroom management of children with externalising and internalising problems that operates similarly to that of the parent-training programme (Webster-Stratton, et al., (2001).

In New Zealand, the *Incredible Years* programme has been extended into *Positive Behaviour for Learning – Parents*. This programme is aimed at helping parents to reduce challenging behaviours in their children aged three to eight years, providing them with strategies to manage such behaviours as aggressiveness, tantrums, swearing, whining, yelling, hitting and refusing to follow rules.

Triple P-Positive Parenting Programme. This is a multi-level parenting and family support strategy aimed at reducing children's behavioural and emotional problems. It includes five levels of intervention of increasing strength:

a. a universal media information campaign targeting all parents: e.g., promoting the use of positive parenting practices in the community, destigmatising the process of seeking help for children with behaviour problems, and countering parent-blaming messages in the media;

b. two levels of brief primary care consultations targeting mild behaviour problems: (i) delivering selective intervention through primary care services such as maternal and child health agencies and schools, using videotaped training programmes to train staff; and (ii) targeting parents who have mild, specific concerns about their child's behaviour or development and providing four 20-minute information-based sessions with active skills training;

c. two more intensive parent training programmes for children at risk for more severe behaviour problems: (i) running a 10-session programme which includes sessions on children's behaviour problems, strategies for encouraging children's development and managing misbehaviour; and (ii) carrying out intervention with families with additional risk factors that have not changed after lower levels of intervention (Sanders, 1999).

22.6 The Evidence on Parental Involvement

As outlined in Mitchell (2014b), there is quite an extensive international literature on the efficacy of parental involvement in their children's education:

A 1998 review of treatments of children and adolescents with conduct disorders, covering the period from 1966 to 1995, found 29 well-designed studies.

Parent training was one of two treatments that were identified as being 'well-established' (Brestan & Eyberg, 1998).

A 1996 meta-analysis of the effects of behavioural parent training on anti-social behaviours of children yielded a significant effect size of 0.86 for behaviours in the home. There was also evidence that the effects generalised to classroom behaviour and to parents' personal adjustment. It was noted, however, that these studies compared parent management training with no training, and not with other strategies (Serketich & Dumas, 1996).

However, another meta-analysis did compare the effectiveness of two different strategies: behavioural parent-training (30 studies) and cognitive-behavioural therapy (41 studies) for children and adolescents with antisocial behaviour problems. The effect size for behavioural parent training was 0.46 for child outcomes (and 0.33 for parent adjustment) compared with 0.35 for child outcomes with cognitive-behavioural therapy. Age was found to influence the outcomes of the two interventions, with behavioural parent training having a stronger effect for preschool and elementary school-aged children, while cognitive behavioural training had a stronger effect for adolescents (McCart et al., 2006).

Another study combined parent involvement and cognitive behavioural therapy. Three groups were compared: (a) those receiving cognitive behavioural therapy with parent involvement (N=17), (b) those receiving cognitive behavioural therapy without parent involvement (N=19), and (c) a waiting list control group (N=14). The children involved in the study were aged from seven to 14 years and all were diagnosed with school phobia. Both treatment conditions resulted in reductions in the children's social and general anxiety at the end of the treatment and on follow-up after six and 12 months, with no corresponding improvements for the waiting list group. These results do appear, however, to favour cognitive behavioural therapy, as the parental involvement had no additional positive effect (Spence et al., 2000).

A US study examined changes in parent functioning as a result of participating in a behavioural parent training programme designed for children aged 6 to 11 with attention-deficit hyperactivity disorder (ADHD). The programme comprised nine sessions conducted over a two-month period, The content included (a) an overview of ADHD, (b) a review of a model for understanding child behaviour problems, (c) positive reinforcement skills (e.g., positive attending, ignoring, compliance with

requests, and a home token/point system), (d) the use of punishment strategies (e.g., response cost, and time out), (e) modifying strategies for use in public places, and (f) working cooperatively with school personnel, including setting up daily report card systems. Compared with equivalent families on the waiting list for the treatment, those receiving the behavioural parent training showed significant changes in their children's psychosocial functioning, including improvements in their ADHD symptoms. As well, the parents showed less stress and enhanced self-esteem (Anastopolous et al., 1993).

A review of outcomes of parent-child interaction therapy (see above) concluded that it was generally effective in decreasing a range of children's disruptive and oppositional behaviours, increasing child compliance with parental requests, improving parenting skills, reducing parents' stress levels and improving parent-child relationships (McIntosh et al., 2000).

A US study investigated the long-term maintenance of changes following parent-child interaction therapy for young children with oppositional defiant behaviour. This study involved interviewing 23 mothers of children aged from six to 12 years. Changes that had occurred at the end of the intervention were maintained three to six years later (Hood & Eyberg, 2003).

An Australian paper reports on studies of the Triple P-Positive Parenting Program (outlined above), administered to parents in groups. One of these involved 1,673 families in Perth, Western Australia. Parents who received the intervention reported significantly greater reductions on measures of child disruptive behaviours than parents in the non-intervention comparison group. Prior to the intervention, 42% of the children had disruptive behaviour, this figure reducing to 20% after intervention (Sanders, 1999).

In a summary of parent-mediated interventions involving children with autism, an overview paper concluded that parents learnt behavioural techniques to increase and decrease selected target behaviours in their children (Matson et al., 1996). Among the studies cited was one in which parents were taught to help their children follow photographic schedules depicting activities such as leisure, self-care and housekeeping tasks. The results showed increases in social engagement and decreases in disruptive behaviour among the children with autism (Kranz et al., 1993).

As well as the foregoing, which appeared in Mitchell (2014b), Shaddock et al. (2009) drew attention to Risko and Walker-Dalhouse's (2009) summary of research on methods for addressing the power imbalance that sometimes exists between parents and teachers. They found that teachers strengthened partnerships by communicating with families frequently; focusing on student success; linking health and social services to families; establishing parent networks; providing a parent meeting room; developing parent programmes in leadership, language and literacy with the parents; and involving parents in the creation and evaluation of school programs. These teachers also visited families and attended community events to learn about their students, families and community, then worked on joint literacy projects with parents, such as dialogue journaling, newsletters, anthologies of poetry, stories and plays.

Also, as summarised in Mitchell et al. (2010), there is extensive evidence for the effectiveness of parent involvement in facilitating children's achievements as has been reported in several reviews and meta-analyses of the international literature (Cox, 2005; Desforges & Abouchaar, 2003; Fan & Chen, 2001; Henderson & Mapp, 2002; Jeynes, 2003, 2005).

22.7   Summary

1. *Parents play important, if not critical, roles in educating and supporting their children's education.*
2. *Parents have been considered in almost every chapter of the current review.*
3. *Many countries have legislation and/or policies on parent involvement in the education of SWSEN, at a minimum their participation in major decisions affecting their children, such as their IEPs and decisions regarding placements.*
4. *Five different levels of parent involvement have been identified: (a) being informed, (b) taking part in activities, (c) participating in dialogue and exchange of views, (d) taking part in decision-making, and (e) having responsibility to act.*
5. *Parents of SWSEN often require support and guidance in managing their children's challenging behaviour. There is clear evidence that when this is provided both children and parents can benefit.*

6. *There is quite an extensive international literature on the efficacy of parental involvement in their children's education*

7. *Three parent training programmes stand out as having good outcomes: (a) behavioural parent training, (b) parent-child interaction therapy, and (c) Triple P-Positive Parenting Programme.*

CHAPTER TWENTY-THREE

UNIVERSAL DESIGN FOR LEARNING

In recent years, the importance of universal design (UD), which had its origins in architecture and engineering, has been increasingly emphasised in education, where it is referred to as universal design for learning (UDL) .[1] It has been described as 'a blueprint or framework for educators in designing flexible curriculum and instruction' (Brownell et al., 2012, p.81). In a nutshell, UDL involves planning and delivering programmes with the needs of all students in mind. It applies to all facets of education: from curriculum, assessment and pedagogy to classroom and school design. The term Universal Design for Learning, as embedded in US law, is taken to mean a scientifically valid framework for guiding educational practice that

a. provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and

b. reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient(Higher Education Opportunity Act, 2008).

In the US, the National Association of State Directors of Special Education describe UDL as being 'a growing practice across the nation, one that is increasingly referenced in education policy briefs, research literature, teacher professional development, and books and articles for educators. Numerous states and universities have some type of UDL initiative underway.' Similarly, in their Australian review, Shaddock et al. (2009) gave considerable prominence to UDL, describing it as a 'leading practice [that] should pervade policy, planning and delivery' (p.15).

The theme of this chapter is that educational services and policies should be universally designed and inclusive of the needs of SWSEN, along with those of all other students. In other words, regular education should be accessible to all students in terms of pedagogy, curriculum and resourcing, through the design of differentiated learning experiences that minimise the need for subsequent modifications for particular circumstances or individuals.

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[1] In Europe, the term 'Design for All' is a near equivalent to UDL.

In this chapter, two topics will be discussed: (a) universal design, and (b) universal design for learning.

23.1   Universal Design

The American architect and designer, Ronald L. Mace, and his co-workers, at what became the Center for Universal Design at North Carolina State University, first used the term 'universal design' in the 1980s. Their original aim was to create built environments and tools that are accessible to as many people as possible. As defined by the Center, 'universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for [subsequent] adaptation or specialized design' (Center for Universal Design (2015). Seven principles for UD have been developed:

1. *Equitable use:* The design is useful and marketable to any group of users. For example, a website that is designed so that it is accessible to everyone, including students who are blind and using text-to-speech software, employs this principle.

2. *Flexibility in use:* The design accommodates a wide range of individual preferences and abilities. An example is a museum that allows a visitor to choose to read or listen to the description of the contents of a display case.

3. *Simple and intuitive use*: Use of the design is easy to understand regardless of the user's experience, knowledge, or language skills. Science laboratory equipment with control buttons that are clear and intuitive is a good example of an application of this principle.

4. *Perceptible information:* The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities. An example of this principle being employed is when multimedia projected in a noisy academic conference exhibit includes captioning.

5. *Tolerance for error*: The design minimises hazards and the adverse consequences of accidental or unintentional actions. An example of a product applying this principle is educational software that provides guidance when the student makes an inappropriate selection.

6. *Low physical effort:* The design can be used efficiently and comfortably with a minimum of fatigue. Doors that are easy to open by people with a wide variety of physical characteristics demonstrate the application of this principle.

7. *Size and space for approach and use*: Appropriate size and space is provided for approach and use, regardless of the user's body size, posture or mobility. A science laboratory work area designed for use by students with a wide variety of physical characteristics and abilities is an example of employing this principle.

(Centre for Universal Design, 2010; Ginnerup, 2009)

Although UD standards address the needs of people with disabilities, its originators emphasised that it is a comprehensive concept designed to benefit *all* users. Thus, it involves developing products (appliances, settings, systems, and processes), which can be used by a wide variety of persons with different levels of abilities in a wide variety of settings, conditions, and circumstances. It goes beyond the issue of mere accessibility of buildings for people with disabilities and should become an integral part of policies and planning in all aspects of society (Ginnerup, 2009). Not to take account of these principles risks creating what Imrie & Kumar (1998) graphically referred to as 'apartheid by design'.

23.2   Universal Design for Learning

In the US, one of the key recommendations of the President's Commission (2002) was to incorporate universal design in accountability tools: 'all measures used to assess accountability and educational progress [should] be developed according to principles of universal design so that modifications and accommodations are built into the test that will not invalidate the results' (p.27).

But, as we shall see, UDL goes well beyond assessment. It recommends ways to provide cognitive, as well as physical, access to the curriculum, assessment and pedagogy. In education, it is usually refers to 'the creation of differentiated learning experiences that minimise the need for modifications for particular circumstances or individuals' (Villa et al., 2005, p.35). Thus, rather than adapting things for individuals at a later time, UDL environments are created from the outset to be accessible to everyone. In other words, 'pre-fitting' not 'retro-fitting' is the aim.

The Center for Applied Special Technology (2010) provides a useful definition of UDL as being:

> the design of instructional materials and activities that allows the learning goals to be achievable by individuals with wide differences in their abilities to see, hear, speak, move, read, write, understand English, attend, organize, engage, and remember. It is achieved by means of flexible curricular materials and activities that provide alternatives for students with disparities in abilities and background as well as those with no visible disabilities. [It] applies not only to the content, but also to goals, methods, and manner of assessment.

The Center goes on to point out that in UDL, (a) alternatives should be built into instruction and should not have to be added on later; (b) it is intended to be inclusive, not solely for those who have disabilities; and (c) it should comprise more than accommodations for physical, sensory, or cognitive disabilities, but should include students with differing abilities, cultural and linguistic backgrounds, and approaches to learning.

According to the Center on Universal Design for Learning, three overarching primary principles guide UDL:

- *Principle I:* Provide Multiple Means of Representation (the 'what' of learning). Students differ in the ways that they perceive and comprehend information that is presented to them. For example, those with sensory disabilities (e.g., blindness or deafness); learning disabilities (e.g., dyslexia); language or cultural differences, and so forth may all require different ways of approaching content. Others may simply grasp information better through visual or auditory means rather than printed text. In reality, there is no one means of representation that will be optimal for all students; providing options in representation is essential.

- *Principle II:* Provide Multiple Means of Action and Expression (the 'how' of learning). Students differ in the ways that they can navigate a learning environment and express what they know. For example, individuals with significant motor disabilities (e.g. cerebral palsy), those who struggle with strategic and organizational abilities (executive function disorders, ADHD), those who have language barriers, and so forth approach learning tasks very differently and will demonstrate their mastery very differently. Some may be able to express themselves well in writing text but not oral speech, and vice

versa. In reality, there is no one means of expression that will be optimal for all students; providing options for expression is essential.

- *Principle III:* Provide Multiple Means of Engagement (the 'why' of learning). Students differ markedly in the ways in which they can be engaged or motivated to learn. Some students are highly engaged by spontaneity and novelty while other are disengaged, even frightened, by those aspects, preferring strict routine. In reality, there is no one means of engagement that will be optimal for all students; providing multiple options for engagement is essential.

The Universal Design for Learning Guidelines further expand on these principles (see Table 23.1).

I. Provide Multiple Means of Representation

1. Provide options for perception
- Options that customize the display of information
- Options that provide alternatives for auditory information
- Options that provide alternatives for visual information
2. Provide options for language and symbols
- Options that define vocabulary and symbols
- Options that clarify syntax and structure
- Options for decoding text or mathematical notation
- Options that promote cross-linguistic understanding
- Options that illustrate key concepts non-linguistically
3. Provide options for comprehension
- Options that provide or activate background knowledge
- Options that highlight critical features, big ideas, and relationships
- Options that guide information processing
- Options that support memory and transfer

II. Provide Multiple Means of Action and Expression

4. Provide options for physical action
- Options in the mode of physical response
- Options in the means of navigation
- Options for accessing tools and assistive technologies
5. Provide options for expressive skills and fluency

- Options in the media for communication

- Options in the tools for composition and problem solving

- Options in the scaffolds for practice and performance

6. Provide options for executive functions

- Options that guide effective goal-setting

- Options that support planning and strategy development

- Options that facilitate managing information and resources

- Options that enhance capacity for monitoring progress

   III. Provide Multiple Means of Engagement

7. Provide options for recruiting interest

- Options that increase individual choice and autonomy

- Options that enhance relevance, value, and authenticity

- Options that reduce threats and distractions

8. Provide options for sustaining effort and persistence

- Options that heighten salience of goals and objectives

- Options that vary levels of challenge and support

- Options that foster collaboration and communication

- Options that increase mastery-oriented feedback

9. Provide options for self-regulation

- Options that guide personal goal-setting and expectations

- Options that scaffold coping skills and strategies

- Options that develop self-assessment and reflection

CAST (2008). *Universal design for learning guidelines version 1.0.* Wakefield, MA: Author.

   Table 23.1 Universal Design for Learning Guidelines

   More specifically, citing Lance & Wehmeyer (2001), Wehmeyer et al. (2002) identified six criteria of UDL:

   Equitable use: materials can be used by students who speak various languages; they address a variety of levels in cognitive taxonomies and provide alternatives that appear equivalent and, thus, do not stigmatise students.

Flexible use: materials provide multiple means of representation, presentation and student expression.

Simple and intuitive use: materials are easy to use and avoid unnecessary complexity; directions are clear and concise; and examples are provided.

Perceptible information: materials communicate needed information to students independent of ambient conditions or students' sensory abilities; essential information is highlighted; and redundancy is included.

Tolerance for error: students have ample time to respond, are provided with feedback, can undo previous responses, can monitor progress, and are provided with adequate practice time.

Low physical and cognitive effort: materials present information in chunks that can be completed in a reasonable time frame.

Elsewhere, the present writer pointed out that as rehabilitation services expand, particularly in the area of assistive technology, there will be an increasing need for some degree of international standardisation (Mitchell, 1999).

23.3 Summary

1. *Universal Design (UD) had its origins in architecture and engineering, and has been increasingly emphasised in education, where it is usually referred to as Universal Design for Learning (UDL).*

2. *UD may be defined as 'the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design'.*

3. *UDL involves planning and delivering programmes with the needs of all students in mind from the outset. It applies to all facets of education: from curriculum, assessment and pedagogy to classroom and school design.*

4. *Three overarching principles guide UDL: (a) provide multiple means of representation, (b) provide multiple means of action and expression, (c) provide multiple means of engagement.*

CHAPTER TWENTY-FOUR

DATA ON STUDENTS WITH

SPECIAL EDUCATIONAL NEEDS

With regular stories in the news of massive thefts of people's private information and the fears associated with the newly-coined term, 'metadata' , 'data' are in danger of becoming discredited.[1] With proper safeguards, however, SWSEN could be the beneficiaries of recent technological developments that have made it possible to acquire, combine, store, analyse, interpret and report information on individuals during any phase of data management and to make decisions based on such information.

This chapter will present a set of criteria for data collection, summarise how data have been portrayed so far in this review, outline WHO's International Classification of Functioning, Disability and Health, and refer to Australia's programme of Nationally Consistent Data Collection on School Students with Disability as an example of data on disabilities.

24.1   Criteria for Data Collection

The Merriam-Webster Dictionary defines data as 'facts or information used usually to calculate, analyze, or plan something.' In a word, data should facilitate good decision-making. In the case of SWSEN, 'good' may be defined as being decisions taken in their immediate and long-term interests as students and citizens. This is the over-riding ethical consideration in obtaining and using data. A related principle is that of the individual's right to privacy and to control information about himself or herself, which the individuals or someone acting on their behalf with their interests in mind may exercise.

Depending on the purposes to which data will be put, they should also meet a range of more technical criteria, as follows:

Validity

Data should measure what it was designed to measure.

Reliability

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[1] 'Data' is sometimes used as a singular noun and sometimes as a plural. The latter is employed in this chapter.

Data should reflect instruments that consistently and accurately measure what they set out to measure.

Completeness

The latest and most comprehensive data should be available for decision-makers.

Relevance

Data must be relevant to a decision-making task.

Timeliness

Data should be available in ample time to be analysed before a decision is made.

Availability

Data should be available to decision-makers on a 'need to know' basis.

Comparability

Different agencies dealing with disabilities should ensure that their data are comparable across agencies, while at the same time developing data that meet their own programmatic needs (Sirken, 2002).

24.2   Data as Portrayed in this Review

The nature of data and the assumptions underlying its gathering and use is one of the threads that runs through this review. The following summarises the way in which data are portrayed in the various chapters:

Chapter Three: Paradigms

Any data that focuses on an individual's disability is predicated on the assumption that the psycho-medical paradigm is not only legitimate, but takes precedence over the socio-political paradigm.

Chapter Four: Definitions, Categorisation and Terminology

Given that there is no universal agreement as to how SWSEN should be defined and categorised, it is difficult, if not impossible, to compare data among countries, and sometimes within countries.

Chapter Five: Disproportionality in special education

Data on ethnic disproportionality suffer from major problems, including the use different approaches to recording ethnicity and the failure to consider that social class may be the more significant variable to focus on when considering over-representation.

Chapter Seven: Response to intervention and graduated response

Decision-making in implementing the response to intervention model is characterised by variability in data relating to the criteria for risk and for what constitutes growth in interventions, indicators for students being no longer at risk, and determinations for type and content of interventions.

Chapter Eight: The educational context

Accountability for the quality of education provided for SWSEN hinges on the availability of sound data on both educational inputs and outcomes, which should be available to all stakeholders.

Chapter Nine: Funding and resourcing

The means of allocating resources to SWSEN rely on appropriate data on individual students' needs and schools' capacities to meet those needs, with appropriate safeguards to prevent unintended consequences, such as gaming.

Chapter Eleven: Assessment

Assessment of SWSEN has the twin aim of obtaining data to inform pedagogical decision-making and the quality of the education provided at the school and system levels.

Chapter Twelve: Evidence-based pedagogy

Educators are increasingly being expected to use data-based strategies, not only in the selection of their teaching strategies, but also in evaluating their employment.

Chapter Thirteen: Inclusive education

Data on inclusive education are bedeviled by variability in its definition, its implementation, and, thus, its outcomes.

As well, almost every other chapter in the review refers to data obtained on the characteristics and needs of SWSEN and their parents, and the outcomes of various policies and interventions.

24.3   The International Classification of Functioning, Disability and Health

According to the World Health Organization (WHO) (2001, 2002), disability is more than a description of a specific health issue; rather, it is affected by people's cultures, social institutions, and physical environments. This view is reflected in WHO's International Classification of Functioning, Disability and Health, known as ICF. This classification presents a framework which encompasses the multifaceted

interaction between health conditions and personal and environmental factors that determine the extent of disablement in any given situation. Thus, it is an umbrella term for any or all of impairments of body structures or functions, limitations of activities, or restrictions in participation.

According to WHO (2002), ICF offers an international, scientific tool for the paradigm shift from the purely medical model to an integrated biopsychosocial model of human functioning and disability. WHO describes it as 'a valuable tool in research into disability, in all its dimensions --impairments at the body and body part level, person level activity limitations, and societal level restrictions of participation' (p.19). As well, ICF is intended to 'provide the conceptual model and classification required for instruments to assess the social and built environment and will be an essential basis for the standardisation of data concerning all aspects of human functioning and disability around the world' (p.19).

Although a child and youth version of the ICF has been developed (Simeonsson et al., 2003), to date it has not been greatly used in the categorisation of individual children, nor in the planning and monitoring of SWSEN systems (Riddell, 2012).

24.4   Australia's programme of Nationally Consistent Data Collection on School Students with Disability

According to PricewaterhouseCoopers (PwC) (2013), Education Ministers from all states and territories and the Commonwealth of Australia have agreed to implement a full collection of data on the level of additional support provided to students with disability across all Australian schools. In 2011, PwC was engaged to undertake the first trial of the nationally consistent collection of data on school students with disability. The trial assessed the appropriateness of the model and its impact on schools and education authorities. In 2012, a second trial of a refined model was carried out, with a focus on the level of 'reasonable adjustment' that students are being provided with to assist their equitable participation in school education. This differed from the 2011 model, which required a clinical diagnosis of disability before a student could be included.

The rationale for developing a nationally consistent model for collecting information about the support ('adjustments') provided to students with disability

centred on the concern that the available information on disability varied across states and territories.

The model is designed to reflect the four key elements of the federal *Disability Standards for Education 2005 (DSE):*

1. Students are entitled to reasonable adjustments to address a disability under Disability Discrimination Act 1992 (DDA) to access education on the same basis as other students.

   −Schools must have evidence to support the inclusion of the student as meeting the definition of disability under the DDA. This may be a clinician's diagnosis or could be a range of other evidence sources proposed by the school.

2. Schools are required to undertake and document the processes that support compliance with the DSE.

   −Schools must confirm that there was documentation that demonstrated a long-term need (minimum one school term) for ongoing adjustments.

3. Schools are required to consult with the student's parent(s), carer(s) or associate(s) to identify reasonable adjustments provided to the student.

   −Schools must confirm that consultation had taken place with the student and student's parent(s), carer(s) or associate(s).

4. Schools must provide reasonable adjustments for the student's identified disability under the DDA.

   −Schools select the level of adjustments provided to the student.

   −Schools select the types of evidence documenting the DSE processes.

   −Schools select the broad category of disability of the student

The model asked schools to classify each student within one of the following four broad categories of disability:

- physical
- cognitive
- social/emotional
- sensory

These are linked to the *Disability Discrimination Act 1992* and the Australian Human Rights Commission interpretation:

Disability Discrimination Act 1992 Disability Standards for Education 2005	Australian Human Rights Commission interpretation of the DDA definition	Primary disability categories used in the national data collection process
a) total or partial loss of a part of body	Neurological	**Physical**
b) the malfunction, malformation disfigurement of a part the person's body	Physical	
c) the presence in the body of organisms causing disease or illness	Physical disfigurement	
d) the presence in the body or organisms capable of causing disease or illness	The presence in the body of disease causing organisms	
a) total or partial loss of the person bodily or mental functions	Intellectual	**Cognitive**
b) disorder or malfunction that result in the person learning different from a person without the disor or malfunction	Learning disabilities	
a) total or partial loss of the person bodily or mental functions	Sensory	**Sensory**
b) the malfunction, malformation o disfigurement of a part of the person's body		
a) a disorder, illness or disease that affects a person's thought processes, perception of reality emotions or judgements or tha results in disturbed behaviour	Psychiatric	**Social/ Emotional**

As well, the model asks schools to consider the level of adjustment being provided to support students to enable them to participate in education on the same basis as any other student, in accordance with the DDA and DSE. The following four categories of adjustment are specified, with more detailed descriptors for each level being included in guidance materials provided to schools:

- *No adjustment*

  Some students with disability, at particular stages during their time at school, may not require any personalised adjustments beyond the resources and services readily available in the school for all students.

- *Supplementary adjustment*

  Supplementary adjustments are provided when there is an assessed need at specific times to complement the strategies and resources already available (for all students) within the school. These adjustments are designed to address the nature and impact of the student's disability, and any associated barriers to their learning, physical, communication or participatory needs.

- *Substantial adjustment*

  Substantial adjustments are provided to address the specific nature and significant impact of the student's disability. These adjustments are designed to address the more significant barriers to their engagement, learning, participation and achievement.

- *Extensive Adjustment*

  Extensive adjustments are provided when essential specific measures are required at all times to address the individual nature and acute impact of the student's disability and the associated barriers to their learning and participation. These adjustments are highly individualised, comprehensive and ongoing.

It is beyond the scope of the present review to analyse this model in any depth. Rather, the writer has elected to pose a series of questions arising from consideration of issues addressed in other chapters of this review. (It is recognised that the authors of the model may have already considered some or all of them.)

1. Has consideration been given to the principles of Response to Intervention (Chapter Seven)? In particular, do the gradations of adjustments in the model take account of the extent to which evidence-based teaching has been employed before deciding that a higher degree of adjustment is appropriate?

2 .Is the model is intended to lead to funding decisions? If so, has consideration been given to the issues raised in Chapter Nine of the present review? In particular,

would a funding model derived from the classification model meet the criteria of transparency, adequacy, efficiency, equity, robustness and freedom from unintended consequences (section 9.5)? For example, is there a risk of over-identifying students with disabilities?

3 .Is the model conducive to inclusive education (Chapter Thirteen)?

4. Does a deficit paradigm underlie the model (Chapter Three)?

5. What account will be taken of the occurrence of disproportionality in the representation of various ethnic groups, gender and socio-economic status in the resultant data (Chapter Five)?

6. Will there be caps on the number of students allocated to the various levels (Chapter Nine)?

7. Could the model lead to classifications that stigmatise students (Chapter Five)? How often will the classifications be made? Can there be appeals against classifications of individual students and, if so, by whom?

8. Is there a risk that, in making decisions using the model, the medical paradigm will predominate (Chapter Three)?

24.5 Summary

1. *Recent technological developments that have made it possible to acquire, combine, store, analyse, interpret and report information on individuals during any phase of data management and to make decisions based on such information.*

2. *Depending on the purposes to which data will be put, they should meet a range of criteria: right to privacy, right to control information about oneself, validity, reliability, completeness, relevance, timeliness, availability and comparability.*

3. *The nature of data and the assumptions underlying its gathering and use is one of the threads that runs through this review.*

4. *The World Health Organization's International Classification of Functioning, Disability and Health offers a tool for a paradigm shift from the purely medical model to an integrated biopsychosocial model of human functioning and disability.*

5. *Australia's programme of Nationally Consistent Data Collection on School Students with Disability is a nationally consistent model for collecting*

information about the support ('adjustments') provided to students with various disabilities.

CHAPTER TWENTY-FIVE

CONCLUSIONS

The purpose of this review was to outline international trends in the education of students with special educational needs (SWSEN). It focused mainly on western countries particularly the UK, the US, Australia, New Zealand, Canada, and those in continental Europe. It is noteworthy that developments in special and inclusive education show similar trajectories across countries, especially those in the developed western world.

The review investigated a range of issues, including paradigms of special needs; definitions and categorisation; disproportionality in the populations of those identified as SWSEN, response to intervention; the nature of educational contexts, with particular reference to features arising from educational reforms; funding and resourcing, the trilogy of curriculum, assessment and pedagogy; inclusive and non-inclusive settings, teacher education, parental involvement, developments in neuroscience, the built environment, full-service schools, wraparound services, transition, and universal design for learning.

From the international literature surveyed, the following conclusions emerged:

1. *The education of SWSEN is a complex process with many inter-related elements, most of which apply to education in general and some of which are specific to SWSEN.*

2. *When considering the human rights of SWSEN, it is useful to distinguish between their 'positive claims rights' and their 'negative claims rights.' The former enjoins us to treat such students in a positive manner by, for example, providing appropriate education and health care, while the latter requires that we should do no harm to them.*

3. *Policies should take account of Rawls's 'difference principle', which permits divergence from strict equality so long as the inequalities in question would make the least advantaged in society materially better off than they would be under strict equality.*

4. *Neoliberalism, centring on the twin notions of reducing state involvement in education and exposing schools to the competitive forces of the free market, has disadvantages for SWSEN.*

5. *Funding models for SWSEN should be transparent, adequate, efficient, equitable, robust, and free from unintended consequences.*

6. *Educational provisions for SWSEN should not be primarily designed to fit the student into existing systems, but rather, they should also lead to those systems being reformed so as to better accommodate diversity, i.e., education should fit the student.*

7. *Inclusive education goes far beyond the physical placement of SWSEN in general classrooms, but requires nothing less than transforming regular education by promoting positive school/classroom cultures and structures, together with evidence-based practices, and providing adequate support for teachers.*

8. *Transition programmes for SWSEN should provide them with the academic and social skills to enable them to become competitively employed and/or to continue their participation in education, to enhance their economic and social welfare, and to enjoy an enhanced quality of life through becoming as independent as possible.*

9. *SWSEN who spend time in well-designed, well-maintained classrooms that are comfortable, well lit, reasonably quiet, and properly ventilated with healthy air will learn more efficiently and enjoy their educational experiences.*

10. *Persons with disabilities have the same legal rights as all others in a society to have their needs taken fully into account in disasters and conflicts, while at the same time receiving additional support that takes account of their needs.*

11. *Research is increasingly confirming that neurological factors contribute to a range of disabilities, as a result of either significant or minimal central nervous system dysfunction. Neuroscience is giving us fruitful leads to follow, a situation that will undoubtedly improve in the future*

12. *New roles for special schools, including converting them into resource centres with a range of functions replacing direct, full-time teaching of SWSEN, should be explored.*

13. *Educational policies and practices for SWSEN (indeed all students) should be evidence-driven and data-based, and focused on learning outcomes.*

14 .International trends in the education of SWSEN should be carefully studied and interpreted through the prism of local culture, values and politics to determine their relevance for any country.

15 .Issues in the education of SWSEN should be comprehensively researched.

16 .Determining valid and reliable ways for measuring learning outcomes for SWSEN should be given high priority.

17. All decisions relating to the education of SWSEN should lead to a high standard of education for such students, as reflected in improved educational outcomes and the best possible quality of life.

18. The rights of SWSEN to a quality education and to be treated with respect and dignity should be honoured.

19. National curricula and assessment regimes should be accessible to SWSEN, taking account of the principles of universal design for learning.

20. Educational provisions for SWSEN should emphasise prevention and early intervention prior to referral for more costly special educational services, through such processes as response to intervention and graduated response to intervention.

21. All educational policies should be examined to ensure that any unintended, undesirable consequences for SWSEN are identified and ameliorated.

22. Any disproportionality in groups represented in special education, especially ethnic minorities and males, should be carefully monitored and ameliorated where appropriate.

23. Partnerships with parents/caregivers of SWSEN should be seen as an essential component of education for such students.

24. Inter-agency collaboration involving wraparound integration of services for SWSEN, and full-service schools, should be planned for and the respective professionals trained to function in such environments.

25.The roles of educational psychologists are going beyond the assessment and classification of SWSEN to incorporate broader pedagogical and systems-related activities, not only with such students, but also in education more generally and in community contexts.

26. Initial teacher education and ongoing professional development for teachers and other educational professionals should take account of the recent emphasis on inclusive education.

27. In order to improve the quality of education for SWSEN, leadership must be exercised throughout the education system, from legislators to school principals.

28. The education of SWSEN will increasingly be driven by data.

29. Finally, in order to give expression to the above conclusions, it is vital that countries develop comprehensive national policy documents on the care and education of SWSEN, with an emphasis on inclusion.

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