Chapter 1

Special educational needs and learning difficulties

Children with special educational needs all have learning difficulties or disabilities that make it harder for them to learn or access education than most children of the same age. These children may need extra or different help from that given to other children of the same age.

(DfES 2006a: n.p.)

The above definition of 'special educational needs' (SEN) provides a simple but accurate description of the children and students whose education is the main focus of this book. It is believed that approximately 15 to 20 per cent of children will have some form of special educational need at some time during their time at school, with about 3 per cent requiring ongoing high-level educational support (DfEE 2001).

Some children with SEN have significant difficulty learning effectively within the mainstream curriculum, due in some cases to below-average cognitive ability, an emotional or motivational problem, poor school attendance, or a behaviour disorder. Others may have difficulty, not in learning, but in accessing resources within the school environment due to a physical or sensory disability (DfES 2006b). In addition, it is now recognised that *any* student may have 'additional educational needs' (AEN) arising from other factors such as English as an additional language, family difficulties, health problems, or social disadvantage (Soan 2004).

Most developed countries share very similar views of what constitutes a 'special educational need'; but countries vary in the extent to which their education policies embody a categorical perspective specifying the particular disabilities that enable a child to be eligible for special education and related services. Countries such as Australia and New Zealand, for example, adopt a fairly non-categorical approach, and identify special educational needs more in terms of the amount of additional support a child or student may require, rather than by the nature of the individual's disability. In the US, by way of contrast, the amended *Individuals with Disabilities Education Act* (IDEA) of 1997 identifies specific disabilities and impairments such as mental retardation (intellectual disability), problems with hearing, vision, speech or language and health, emotional disturbance, orthopaedic impairments,

autism, traumatic brain injury, and specific learning disabilities (US Congress 2002). To this long list one can also add children who have been described in the past as 'slow learners', children with attention-deficit hyperactivity disorder (ADHD) and children who are at risk of developing learning problems due to second-language difficulties (Friend and Bursuck 2006). Many writers point out that gifted and talented students also have special educational needs – but not many countries include the category of gifted in their policies for special education services.

In an attempt to clarify definitions and descriptions of students with special needs the OECD (2000) suggested three broad categories:

• students with identifiable disabilities and impairments;
• students with learning difficulties not attributable to any disability or impairment;
• students with difficulties due to socio-economic, cultural or linguistic disadvantage.

For most children in all three categories (other than those with severe and complex disabilities) the worldwide trend is toward placement in mainstream classes. In the UK for example, documents such as *Every Child Matters* (HMSO 2003) and *Removing Barriers to Achievement* (DfES 2004a) make it clear that all teachers can expect to teach children with special educational needs in their regular classes, and all schools must strive to be inclusive by educating the full range of children from the local community.

The policy of inclusion has had a major impact on the role of regular class teachers, who are now required to cater for a much wider range of ability than ever before. The population of students with special educational needs is extremely diverse, and the education of these children in the mainstream presents a major challenge to teachers everywhere. Ellis (2005: 2) has remarked that, 'The inclusion of students with diverse educational needs in the regular classroom is proving to be an extremely difficult and complex task for many teachers'. The move toward inclusive schooling has created a situation where all teachers must now acquire additional knowledge about students with special needs and how best to meet those needs in regular classrooms.

Inclusion has also changed the role of special education and remedial teachers, who must now work much more closely with regular class teachers to provide support. It is clear that teachers themselves need support in meeting the challenges of inclusive education (Atkinson et al. 2006).

Inclusive schooling and special educational needs

Prior to the 1970s, most SEN students, particularly those with moderate intellectual disability or with significant physical or sensory impairments, were routinely

placed in special classes or special schools to receive an adapted form of education. In recent years the situation has changed, and students with mild to moderate degrees of disability or difficulty are usually retained in mainstream classes and given any necessary support in that setting. This change reflects, to some extent, a shift in thinking from a medical 'separate treatment' model to a 'social model', where differences among learners are recognised, respected and addressed within the context of mixed-ability teaching (Soan 2004).

The move toward inclusion began tentatively in the 1970s under the banner 'integration' or 'mainstreaming', and gained momentum in the late 1980s and 1990s under the influence of policies of social justice and equity. The inclusion ideal was given additional impetus by *The Salamanca Statement and Framework for Action on Special Needs Education* (UNESCO 1994), a document advocating strongly for students with special educational needs to be taught within the regular education system. In 2004, UNESCO defined inclusive education in these terms:

Inclusive education is a developmental approach seeking to address the learning needs of all children, youth and adults with a specific focus on those who are vulnerable to marginalisation and exclusion.

(UNESCO 2004: n.p.)

Underpinning inclusive education is the principle that every child, regardless of gender, ethnicity, social class, ability or disability, has the basic right to be educated in the regular classroom. It is believed that inclusive schooling paves the way for a more inclusive society. This principle has been accepted to varying degrees in most developed countries, and has influenced education policy-making in the United States, Canada, Britain, Australia, New Zealand, Scandinavia, and much of Europe and Asia. However, in many of these countries the implementation of inclusive classroom practice is still lagging behind the stated policies – and often the rhetoric of 'inclusion' is far ahead of the reality in schools (DfES 2004a; Rustemier and Vaughn 2005). Some countries have been slow to promote inclusion, in part because teachers and principals were not strongly in favour of teaching children with SEN in the mainstream. Studies have shown that teachers' attitude toward inclusion and toward students with disabilities is a powerful influence on the success or failure of inclusion (e.g. Skidmore 2004; Ostrosky et al. 2006). In the UK, the Department for Education and Skills (DfES 2004a: 32) states:

Effective inclusion relies on more than specialist skills and resources. It requires positive attitudes toward children who have difficulties in school, a greater responsiveness to individual needs and critically, a willingness among all staff to play their part. The leadership of the head-teacher is a key factor in making this happen.

Sometimes there is opposition from parents of both disabled and non-disabled children, concerned that classrooms containing a very wide range of ability may end up failing to meet the needs of any of the children (Leyser and Kirk 2004). Other obstacles have been a lack of funds for providing an adequate system of support to children with special needs and their teachers, and difficulties in providing sufficient additional training for teachers to enable them to manage and teach students with special needs more effectively (Rose 2001).

Although there is fairly general acceptance of the principle that students with mild disabilities should be included in the regular classroom, policies that advocate the inclusion of *all* students with disabilities ('full inclusion') are not without their critics – with some educators arguing that regular class placement is not the least restrictive learning environment for some children (e.g. Dymond and Orelove 2001; Kauffman et al. 2005). Many tensions still remain between those who advocate inclusion for all and those who believe strongly that some children with special needs can have those needs met most effectively in separate settings with alternative curricula and readily-available support services. For this reason it is often argued that the full range of placement options, including special schools and special classes, must be retained, thus allowing for responsible choice to be made concerning the most appropriate educational setting for each individual with a disability. Many educators believe that the right of parents to make the choice between mainstream and special setting should be preserved. However, the more vocal of the inclusive education advocacy groups are still calling for the closure of all special schools and segregated units.

The practical problems surrounding inclusion are most obvious in the case of individuals with severe and multiple disabilities or with challenging behaviour, since many of these students require a high degree of physical care and management over and above their educational needs. By comparison, the inclusion of students with milder forms of disability and with general learning difficulties presents fewer problems. It is believed that regular class teachers can adopt teaching approaches that are more adaptive to the specific needs of such students (Janney and Snell 2004). Regardless of whether a child with SEN is placed in a mainstream class or in a special setting, the aim is always to address the child's needs through the provision of a broad and balanced education, together with any additional support and special methods or resources that may be required (DfES 2006a: n.p.).

Factors associated with successful inclusion

Research is still investigating which models of school organisation and which classroom practices result in the most effective inclusion for all students (e.g. Johnson 2006; Kauffman et al. 2005; Rea et al. 2002). It seems that as a very minimum the following ingredients are required if students with significant learning or adjustment problems are to be successfully included in the regular classroom with appropriate access to the general curriculum:

- strong leadership on the part of the school principal;
- development of a whole-school policy supportive of inclusion;
- positive attitudes in staff, parents and children towards students with disabilities;
- commitment on the part of all staff to work collaboratively and to share expertise;
- development of mutual support networks among staff;
- regular assistance from paraprofessionals (classroom aides and assistants);
- adaptation of curriculum and teaching methods (differentiation);
- effective links with outside agencies and services;
- adequate resourcing in terms of materials and personnel;
- ongoing training and professional development for staff;
- close liaison with parents;
- direct parental involvement in a child's educational programme, where possible.

In recent years many books and articles have been written on the theme of inclusive education, mainly from philosophical, political and managerial perspectives. Gradually, more books are addressing the classroom practicalities of inclusion. Inclusive education – and how best to achieve it – will be the topic of debate for many years to come.

How many students have special educational needs?

When mainstream teachers are asked to identify the number of students with special needs in their own classes they tend always to identify significantly more children than the official prevalence figures would predict (McKinnon and Gordon 1999; Westwood and Graham 2000). This may be because teachers have a vested interest in reporting high prevalence rates in order to gain additional resources or support for the school; on the other hand, official figures may be underestimating the true number of children with disabilities, learning difficulties or behaviour problems. An OECD report on inclusive education states that it has been widely accepted in many countries that 15 to 20 per cent of students will have special needs at some time in their school careers (OECD 1999). Some studies have suggested a much higher figure – even as high as 32 per cent if all students with general learning difficulties, low achievement, and behaviour problems are included (Westwood and Graham 2000). Very significant emotional and behavioural difficulties are reported in approximately 9 per cent of the school population (Croll and Moses 2000). The percentage of children with significant intellectual, physical, or sensory disabilities is relatively small, possibly no more than 3 per cent of the school population (Colbert and van Kraayenoord 2000), with just over 1 per cent enrolled in special schools (DfES 2004a).

The remaining sections of this chapter address the characteristics and needs of students with general and specific learning difficulties. In later chapters the characteristics and instructional needs of children with various types of disability will be discussed.

Learning difficulties: confusing terminology

It must be noted here that the terms 'moderate learning difficulties' (MLD) and 'severe learning difficulties' (SLD) are used very differently in the UK from their use in most other countries. In the UK these terms are applied to students with *intellectual disability* (mental handicap or mental retardation). In the UK, students with intellectual disability are also sometimes described as having 'a learning disability' (see for example British Institute of Learning Disabilities 2004). In most other countries the terms 'learning difficulty' and 'learning disability' are not used to describe intellectual disability. This inconsistent terminology gives rise to confusion when reading the international literature on special education, particularly since the abbreviation SLD has traditionally been used in most countries to denote '*specific learning disability*' in students of normal intelligence. In this book, the terms 'learning difficulty' and 'learning disability' will not be used to refer to students with intellectual disability; and the abbreviation SpLD will be used to denote specific learning disability, as described below.

Students with general and specific learning difficulties

The largest single group of students with special needs in any country comprises those with general and specific learning difficulties that are not related to any intellectual, physical or sensory impairment. Estimates suggest that this may involve 15 to 20 per cent of the school population (Smart et al. 2005). These learning difficulties most frequently manifest themselves as problems in acquiring literacy and numeracy skills. Difficulties with reading, writing and numeracy then impact adversely on a child's ability to learn across the curriculum (Hay et al. 2005).

The term 'learning difficulties' is a very general one, used widely and without much precision. Usually the term is applied to students whose difficulties are not directly related to a specific intellectual, physical or sensory disability. Students who have been referred to as 'slow learners', 'low achievers', or simply 'the hard to teach', certainly fall within the category 'learning difficulties'. So too does the very much smaller group of children described as having a specific learning disability (SpLD) – those of at least average intelligence who for no obvious reason experience chronic problems in learning basic academic skills (APA 2000). It is estimated that this group represents approximately 3 per cent of the school population.

It is vitally important to identify students who are experiencing general or specific problems in learning and to provide support and skilled teaching to improve their achievement level and restore their confidence. Kirby et al. (2005: 123) suggest that: 'There is evidence that difficulties experienced at school, if not addressed, may persist into adulthood with a greater risk of psychological problems such as anxiety, depression and lowered self-esteem'.

Possible causes of general learning difficulty

The cause of a learning difficulty usually cannot be attributed to a single factor. Most learning problems arise from a complex interaction among variables such as curriculum content, learners' prior knowledge and experience, learners' cognitive ability and task-approach strategies, teachers' instructional methods, complexity of teachers' language, suitability of resource materials, learners' confidence and expectation of success, and the perceived relevance or value of the learning task. Until recently, curricula, teaching methods, and materials were rarely investigated as possible causes of a learning difficulty, but now it is acknowledged that:

> Difficulties in learning arise from an unsuitable environment – inappropriate grouping of pupils, inflexible teaching styles, or inaccessible curriculum materials – as much as from individual children's physical, sensory or cognitive impairments.
>
> (DfES 2004a: 28)

Many additional factors may also contribute to a failure to learn, such as distractions in the learning environment, the health or emotional state of the learner, the interpersonal relationship between teacher and learner, and relationships with the peer group.

Despite the many and varied possible causal factors associated with learning difficulty, it seems that most teachers, psychologists and researchers still tend to focus almost exclusively on so-called 'deficits' or weaknesses within the learner to account for children's problems in coping successfully with the school curriculum. Even parents tend to assume that there is something 'wrong' with their child if school progress is unsatisfactory.

Many researchers have attempted to summarise characteristics of students with learning difficulties, resulting in lists similar to the one below – often referred to as the 'deficit model' or 'blame the victim'. The deficit model suggests that learning problems are due to:

- below average intelligence;
- poor concentration;
- problems with visual and auditory perception;
- difficulties in understanding 'complex language;
- limited vocabulary;

- low motivation;
- poor recall of previous learning;
- inability to generalise learning to new contexts;
- lack of effective learning strategies;
- deficient self-management skills;
- poor self-esteem;
- learned helplessness, or diminished belief concerning self-efficacy;
- behavioural and emotional reactions to failure.

While these weaknesses do exist in many students with learning difficulties, they should not be viewed as obstacles too difficult for teachers to overcome, but rather as clear indications of the students' need for high-quality teaching. The deficit model does at least highlight specific difficulties that need to be taken into account when planning and implementing classroom programmes.

Rather than blaming the victim it is usually much more productive to examine factors outside the child such as quality and type of instruction, teacher expectations, relevance of the curriculum, classroom environment, interpersonal dynamics within the class social group, and rapport with the teacher. These factors are much more amenable to modification than are factors within the child or within the child's family background or culture. Trying to identify how best to help a student with general learning difficulties involves finding the most significant and alterable factors that need to be addressed, and providing students with high-quality instruction.

Students with specific learning disabilities (SpLD)

Specific learning disability (SpLD) is the term applied to approximately three children in every 100 whose difficulties cannot be traced to any lack of intelligence, sensory impairment, cultural or linguistic disadvantage or inadequate teaching. This disability manifests itself as a marked discrepancy between intellectual ability and academic achievement (APA 2000). This small group exhibits chronic problems in mastering the basic academic skills of reading, writing, spelling and mathematics. Some students with SpLD also have problems with social relationships (Pavri 2006) and a few have minor difficulties with physical skills.

Perhaps the most comprehensive and widely accepted definition of SpLD comes from legislation in the US, where it is stated that:

The term 'specific learning disability' means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in imperfect ability to listen, think, speak, write, spell, or to do mathematical calculations. Such term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Such term does not

include a learning problem that is primarily the result of visual, hearing, or motor disabilities; of mental retardation; of emotional disturbance; or of environmental, cultural, or economic disadvantage.

(US Public Law 108-446, cited in Lerner and Kline 2006: 7)

Over the years, children with learning disabilities have been described as possessing some of the following characteristics:

- a history of late speech development; continuing immaturities in articulation and syntax;
- visual perception problems resulting in frequent reversal of letters and numerals; some individuals reporting distortion or blurring of print when reading;
- auditory perception problems, including difficulties in developing phonemic awareness;
- difficulty in recalling words, or quickly naming familiar objects;
- minor signs of possible neurological dysfunction;
- hyperactivity and/or attention deficits;
- poor motor co-ordination;
- inefficient learning strategies and poor self-management;
- secondary emotional and behavioural problems due to persistent failure;
- diminished motivation;
- learned helplessness, anxiety and depression.

It must be noted that almost all of the problems listed above may also be found to varying degrees in students who have *general* learning difficulties rather than SpLD, so the list does not really help to differentiate between those who have a genuine learning disability and those who are often referred to as having 'garden variety' learning difficulties. To add to the problem of identification it is also the case that any one child with SpLD may exhibit only a few of the characteristics in the list.

Identification of SpLD

It is often argued that the difficulties of many students with learning disability are not recognised early enough in school, and unfortunately many SpLD students are considered simply lazy or unmotivated. Some of these students will go on to develop social and emotional problems and some will present with major behaviour difficulties (Hallahan and Kauffman 2006). Studies have shown that a significant number of students with SpLD leave school at the earliest possible date and do not pursue studies later as adults (Sabornie and deBettencourt 2004).

The traditional method for identifying SpLD is to assess the student's level of intelligence using a standardised intelligence test, then to obtain standardised measures of attainment in academic skills such as reading, spelling, and

mathematics. Any marked discrepancy between level of intelligence and level of attainment (an indication of so-called 'significant under achievement') might indicate the presence of a learning disability. There have been many objections raised to the rigid use of this discrepancy approach to identification, since it might exclude some students who have obvious learning difficulties from receiving additional remedial support, simply on the basis of IQ (Sternberg and Grigorenko 2001).

It has been suggested that the best indication of SpLD, as opposed to a general learning difficulty, is the child's lack of positive response to high-quality intervention (Kavale 2005). Under this 'response to intervention' (RTI) model, students with learning difficulties would first be given regular additional intensive tutoring in small groups, and only those who fail to respond within a reasonable period of time are then referred for in-depth psychometric assessment and ongoing one-to-one tuition (Bradley et al. 2005; Vellutino et al. 2006). This model sits well with the 'multi-tiered' or 'multi-wave' intervention systems currently being adopted for remedial reading and mathematics (e.g. DfES 2002; 2005). Under this system, Tier 1 represents 'primary prevention', with all students exposed to systematic and high-quality first teaching of reading and maths in the regular class. Tier 2 represents 'secondary prevention', with additional small-group tutoring and practice provided for up to 20 per cent of children. Tier 3 (termed 'Third Wave Intervention' in the UK) provides daily intensive tuition for poor responders, with children taught in pairs or individually. Children who are still making very poor progress even with Tier 3 support are possibly those with a genuine learning disability (Reschly 2005).

Dyslexia and other learning disabilities

The most widely recognised learning disability is dyslexia. This form of reading problem is thought to be present in approximately 1 to 2 per cent of the school population — although some reports place the prevalence rate very much higher. Dyslexia is often defined as a 'disorder' causing difficulty in learning to read despite conventional instruction, adequate intelligence, and opportunity.

The oral reading performance of dyslexic students tends to be very slow and laboured, with maximum effort devoted to identifying each individual word, leaving minimum cognitive capacity available for focusing on meaning. The student tires easily and avoids reading if possible. The dyslexic student typically has great difficulty in:

* understanding and applying phonic decoding principles;
* building a vocabulary of words recognised by sight;
* making adequate use of contextual cues to assist word recognition;
* developing speed and fluency in reading;
* understanding what has been read.

Other forms of learning disability described in the literature include dysgraphia (problems with writing), dysorthographia (problems with spelling), dyscalculia (problems with number concepts and arithmetic) and dysnomia (inability to retrieve words, names, or symbols quickly from memory). It is doubtful, of course, that these pseudo-medical terms have any real value, particularly in determining an intervention programme for an individual child. The Diagnostic and Statistical Manual of Mental Disorders (APA 2000) describes the same problems under the categories: 'reading disorder', 'mathematics disorder', and 'disorders of written language'.

Possible causes of specific learning disability

Some authorities in the learning disability field tend to attribute the learning problem to neurological deficits or to developmental delay (see for example discussions in Lerner and Kline 2006, or Lyon et al. 2003). Bender (2004) on the other hand, points out that the neurological perspective, although capturing researchers' keen attention for nearly 70 years, remains controversial and has failed to produce any useful treatment strategies or teaching interventions.

Although much emphasis has been placed on possible organic and biological causes of learning disability, interest has also been shown in other possible causes. In particular, attention has been directed towards students' learning styles and learning strategies (Gregory and Chapman 2002). In many cases of learning disability the children do not appear to have an effective system for approaching a task such as phonic decoding, writing a story, or completing an arithmetic problem. Their lack of effective strategies produces a high error-rate and rapid frustration. It has become popular in recent years to say that these students need to 'learn how to learn' so that they can tackle classroom activities with a greater chance of success. The important thing to note is that current evidence suggests that children can be taught to use more efficient learning strategies and can then function at significantly higher levels (Ellis 2005; Paris and Paris 2001). What is also clear is that attempts at matching the method of instruction to students' so-called natural and 'preferred learning style' is not effective, although the notion appeals intuitively to many teachers (Coffield et al. 2004; Mortimore 2005).

One particular factor considered to cause learning problems typical of students with a specific reading disability is a lack of awareness of the phonological (speech–sound) aspects of oral language. This difficulty in identifying component sounds within words also impairs their ability to master phonic principles and apply the decoding strategy for reading and spelling (Muter and Snowling 2003; Stahl and McKenna 2006). It is now believed that in the most severe cases of reading disability this poor phonological awareness is often accompanied by a 'naming-speed' deficiency in which the student cannot quickly retrieve a word or a syllable or a letter-sound association from long-term memory (dysnomia). These combined weaknesses create what is termed a 'double deficit' and together

make it extremely difficult for the child to develop effective word recognition skills or become a fluent reader (Vukovic and Siegel 2006).

Is the concept of 'learning disability' useful?

Learning disability remains a controversial topic. Stanovich (1999: vii) remarked: 'The field of learning disabilities is littered with dead ends, false starts, pseudo-science, and fads.' While some experts argue strongly that, for example, a severe reading disability is qualitatively and etiologically different from any of the more general forms of reading failure, others regard it as merely a different point on the same reading-difficulty continuum.

It is fairly clear that the study of SpLD has not resulted in any major breakthrough in tailored teaching methods or instructional resources. In terms of pedagogy, it is difficult to visualise that any teaching method found useful for children with general problems in learning to read or calculate would not also be highly relevant for other children identified as dyslexic or dyscalculic – and vice versa. If one examines the literature on teaching methodology for children with SpLD (e.g. Lerner and Kline 2006; Lewis and Doorlag 2006; Pierangelo and Giuliani 2006) one usually finds not a unique methodology applicable only to SpLD students but a range of valuable teaching strategies that would be helpful to all children. Any child with a learning problem requires assistance, and there seems little to be gained from seeking to differentiate between SpLD and 'non-SpLD' students; the need for high-quality, effective instruction is equally strong in both groups. All children who find learning to read and write difficult are best served by designing and delivering intensive high-quality instruction, rather than by identifying then with a label.

Correlates of learning difficulty: reduced motivation and learned helplessness

Teachers often blame a student's learning problems on his or her lack of motivation. They believe that this lack of motivation is the underlying reason that students avoid class work, refuse to become fully engaged in a learning task, fail to complete work they could easily do, or are willing to complete a task only for some extrinsic reward it may bring. It is almost as if teachers believe motivation to be an innate trait of learners, rather than a variable that is significantly influenced by outside factors.

For many students with learning difficulties the problem is certainly not an innate lack of motivation but rather a marked reluctance to take risks or make any new commitment in a learning situation. This reluctance is due chiefly to prior experiences of failure. There is abundant evidence that obtaining poor outcomes from personal effort to learn can have lasting negative effects on the students' self-esteem, and perceptions of self-efficacy (Westwood 2004a). If students come to believe that they lack the ability ever to succeed they may try to avoid

participating in achievement-oriented activities simply to protect their feeling of self-worth – believing that if they don't attempt the task they will not be seen by others to have failed.

Students who encounter continual failure and disapproval may regress over time to a state of learned helplessness, with a very significant decline in motivation and effort (Burden and Snowling 2005). Learned helplessness is the situation in which an individual never expects to succeed with any task he or she is given, and feels totally powerless to change this outcome. Observation of young children suggests that, even at an early age, they can begin to regard themselves as failures in certain learning situations. If, for some reason, a child finds that he or she cannot do something that other children are doing easily, there is a loss of confidence. This loss of confidence leads to deliberate avoidance of the type of activity associated with the failure, and sometimes even avoidance of any new or challenging situation. Avoidance leads to lack of practice. Lack of practice ensures that the individual does not gain in proficiency or confidence, while other children forge ahead. The effects of early failure are thus cumulative, and may contribute later to many instances of learning difficulty in school.

While there are different individual thresholds of tolerance for failure among students, it must be acknowledged that failure is not a pleasing experience, and given sufficient exposure to it almost any student will develop avoidance strategies and learned helplessness. One of the ways of remedying this situation is through attribution retraining (Brophy 2004; Horner and Gaither 2004), an approach to be discussed later. The main challenge for teachers is to try to use teaching methods and learning activities in the classroom that will lead all students to feel successful. Prevention of a learning difficulty in this way is so much more effective than remedial support provided after failure has become well established.

Impact of students' learning difficulties on teachers' motivation

Unfortunately, children's learning problems can have a negative impact on teachers' attitude and motivation. The poor learning habits, low achievement, and reduced motivation seen fairly frequently in students with learning difficulties can influence the attitude teachers develop towards such students (Berry 2006; Feldman and Denti 2004). According to studies reviewed by Eggen and Kauchak (2004), teaching students with learning problems, particularly if the students are in low-stream classes, can have a very negative effect on teachers' own enthusiasm and motivation. Researchers have suggested that teachers' expectations for students' progress and improvement are lowered in the case of bottom-stream classes (Chang and Westwood 2001). This is one of the reasons why grouping students by ability has become a less popular model of organisation within schools.

Teachers' negative beliefs and attitudes are extremely significant because they are communicated all too easily to students. When teachers' attitudes towards the students are perceived as negative they often exert detrimental influences on

students' self-esteem and willingness to work. Students' self-esteem and self-efficacy are built out of the way that teachers behave towards them; and as Biggs (1995: 98) remarked, 'Any messages that suggest incompetence are damaging.' The everyday actions and reactions of teachers when teaching low-ability classes may add to students' own perceptions of being incompetent. Even unintentional cues from teachers – such as providing simplified materials, easier tasks, too much praise, too much help – may cause students to believe they are lacking in ability or that teachers believe them to be so. Brophy (2004) has summarised many ways in which teachers, albeit unwittingly, communicate reduced expectations to students they perceive as having low ability. The end result is a lowering of the students' feelings of self-efficacy. When students believe their teachers regard them as 'dull' or 'no-hopers', the development of learned helplessness becomes more likely.

In terms of students' progress and motivation it is important to consider which teaching approaches tend to produce the most successful learning. This theme is developed more fully in Chapter 14.

Teaching approaches

Due to the fairly disappointing standards achieved by too many students in recent years there have been demands in several countries for schools to adopt teaching methods that have been carefully evaluated for their efficacy – rather than employing methods based on teachers' personal intuition, style, or preference (Carnine 2000; DEST 2005; DfES 2004a; Moran 2004). This clarion call for 'research-based instruction' has focused mainly on the teaching of literacy and numeracy, where there are concerns that child-centred approaches have not been effective with some students; but its impact is also being felt in other areas of the curriculum such as science and social studies (Tweed 2004).

In the past, some educators have suggested that child-centred constructivist approaches such as project work, resource-based learning, activity methods, and whole-language approach to literacy have most to offer children with special educational needs (e.g. Goddard 1995; MacInnis and Hemming 1995). These 'process-oriented approaches' – which often seem to emphasise social and emotional development rather than mastery of curriculum content – are thought to be more accommodating of student differences. However, research evidence suggests that students with disabilities and learning problems frequently do best in more tightly structured programmes where direct teaching methods and guided practice are employed (Swanson and Deshler 2003; Vaughn et al. 2000).

It is firmly believed now that the most effective teaching methods for developing basic academic skills are those that provide a balance between explicit instruction from the teacher on the one hand, and student-centred application and practice on the other (Ellis 2005). In general, effective teaching methods are those that provide students with the maximum opportunity to learn by increasing 'academic engaged time' and maintaining high levels of on-task behaviour. Academic engaged time refers to the proportion of instructional time in which students are actively focused on their work. This active involvement includes attending to instruction from the teacher, working independently or with a group on assigned academic tasks, and applying previously acquired knowledge and skills. Studies have shown that students who are receiving instruction directly from the teacher attend better to the content of the lesson than students who are expected to find out information for themselves. Effective lessons, particularly those covering basic academic skills, tend to have a clear structure, with effective use made of the available time. Effective teaching not only raises the attainment level of all students but also reduces significantly the prevalence of learning failure.

According to Foorman et al. (2006) the features most commonly found in effective classrooms that distinguish them from less effective classrooms in terms of student achievement include:

- teachers display good classroom management;
- more time is devoted to instructional activities;
- students are more academically engaged;
- a good balance between teacher-centred and student-centred activities;
- teachers provide support and 'scaffolding' to help students develop deeper understanding;
- tasks and activities are well matched to students' varying abilities (differentiation);
- students are encouraged to become more independent and self-regulated in their learning.

Swanson (2000), using meta-analyses of learning outcomes from different types of teaching approach, drew the conclusion that the most effective approach for teaching basic academic skills to students with learning difficulties combines the following features:

- carefully controlling and sequencing the curriculum content to be studied;
- providing abundant opportunities for practice and application of newly acquired knowledge and skills;
- ensuring high levels of participation and responding by the children (for example, answering the teacher's questions; staying on task);
- providing frequent feedback, correction and reinforcement;
- using interactive group teaching;
- modelling by the teacher of effective ways of completing school tasks;
- teaching children how best to attempt new learning tasks (direct strategy training);
- making appropriate use of technology (e.g. computer-assisted instruction);
- providing supplementary assistance (e.g. homework; parental tutoring, etc.).

In summary, explicit instruction appears to achieve most in the early stages of learning basic academic skills. The use of direct teaching methods in no way precludes the student from ultimately developing independence in learning; indeed, direct teaching in the early stages facilitates greater confidence and independence in later stages. Over many decades, despite the popularity of student-centred, activity-based approaches, clear evidence supports the value of appropriate direct teaching, often delivered through the medium of interactive whole-class lessons (Dickinson 2003).

Wilen et al. (2000: 283) remarked:

> As to which types of learners benefit most from this systematic approach, research tells us that it is helpful for young children, slower learners, and students of all ages and abilities during the first stages of learning informational material or material that is difficult to learn.

Further reading

Guerin, G. and Male, M.C. (eds) (2006) *Addressing Learning Disabilities and Difficulties,* Thousand Oaks, CA: Corwin Press.

Jorgensen, C.M., Schuh, M.C. and Nisbet, J. (2006) *The Inclusion Facilitator's Guide,* Baltimore, MD: Brookes.

Lewis, A. and Norwich, B. (eds) (2005) *Special Teaching for Special Children: Pedagogies for Inclusion,* Maidenhead: Open University Press.

Lewis, R.B. and Doorlag, D.H. (2006). *Teaching Special Students in General Education Classrooms* (7th edn), Upper Saddle River, NJ: Pearson-Merrill-Prentice Hall.

Loreman, T., Deppeler, J. and Harvey, D. (2005) *Inclusive Education: A Practical Guide to Supporting Diversity in the Classroom,* London: Routledge-Falmer.

Mastropieri, M.A. and Scruggs, T.E. (2007) *The Inclusive Classroom: Strategies for Effective Instruction* (3rd edn), Upper Saddle River, NJ: Pearson-Merrill-Prentice Hall.

Pierangelo, R. and Giuliani, G. (2006) *Learning Disabilities: A Practical Approach to Foundations, Assessment, Diagnosis and Teaching,* Boston, MA: Pearson-Allyn and Bacon.

Topping, K. and Maloney, S. (eds) (2005) *The RoutledgeFalmer Reader in Inclusive Education,* London: Routledge.

Vaughn, S., Bos, C.S. and Schumm, J.S. (2006) *Teaching Exceptional, Diverse and At-risk Students in the General Education Classroom,* Boston, MA: Allyn and Bacon.

Students with intellectual disability and autism

> Mental retardation [intellectual disability] is a disability characterized by significant limitations both in intellectual functioning and adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18.
>
> (Luckason et al. 2002: 1)

In the early days of 'integration', teachers often expressed grave doubts about the feasibility of placing children with intellectual disability in regular classrooms, particularly in relation to their own competence to meet the needs of these students. Teachers' doubts and negative attitudes could be attributed in part to their limited knowledge of disabilities and their lack of first-hand experience working with atypical children (Weisel and Tur-Kaspa 2002). However, the trend toward inclusion has made it essential now for all teachers to possess a working knowledge of the effects a disability can have on a student's development, learning and social adjustment. Teachers also need to develop strategies for helping these children participate in the mainstream curriculum.

Guiding principles for the mainstream teacher

It is essential first to stress two basic principles that should underpin teachers' beliefs and actions in relation to students with disabilities:

* Students with disabilities are *more like* all other children than they are *different from them.* A lack of awareness of this fact is what contributes to teachers' fear of the unknown.
* Students with a particular disability (e.g. Down's Syndrome) as a group are *just as diverse* in their personal characteristics, behaviour, interests, and learning aptitudes as any other group of students. The assumption that they are all the same leads to negative stereotyping of particular disability groups.