

# Components of Special Education

*Foundations of Special Education* considers disciplines and perspectives underpinning special education. This chapter defines special education and elaborates components of the definition.

The contents of subsequent chapters are then explained.

## Special Education Defined

The United States Department of Education has defined special education as, 'specially designed instruction . . . to meet the unique needs of a child with a disability' (United States Department of Education, 1999, pp. 124–125). However, it may be argued that special education is broader than instruction, and that the term 'provision' better captures what is offered. Other features of special education may also be included in a broader definition. Accordingly, a proposed definition of special education is suggested in the box below that informs the approach of this book.

Special education refers to distinctive provision, including education, for pupils with disability/disorder. It is informed by a range of foundational disciplines, and encourages academic progress and personal and social development. Special education has identifiable aims and methods.

This requires further elaboration of the following terms:

- education
- disability/disorder

- provision
- distinctive
- foundational disciplines
- academic progress and personal and social development.

It also calls for 'aims and methods' to be identified and explained. The following sections cover these points.

### Education

Education is defined as, '... the process of giving or receiving systematic instruction' (Soanes and Stevenson, 2003), and to educate someone is to provide, '... intellectual, moral and social instruction' (ibid.). It can be seen that education concerns not just intellectual progress but also social and personal development. Also, instruction is only one way of teaching, and other aspects of pedagogy include: modelling, questioning, and task structuring (Tharp, 1993, pp. 271–272).

Education implies that '... something worthwhile is being or has been intentionally transmitted in a morally acceptable manner' (Peters, 1966). What is considered worthwhile may change over time and differs in various cultures. A general statement of what might be 'worthwhile' could be that it is the skills, knowledge, attitudes and values that a society endorses (Farrell *et al.*, 1995, p. 70). The 'intentional' aspect of Peters' definition distinguishes education from incidental learning and suggests that education involves structured experiences aimed at facilitating learning. The 'morally acceptable manner' element of education concerns the process by which worthwhile content is transmitted. Education implies freedom to consider differing views and information, and coming to a reasoned conclusion. It differs in this respect from indoctrination although the two are not always as easily separable as might at first appear (ibid., pp. 70–71).

Education leads to change. It has been suggested that to be educated, implies that, the individual, '... has been changed by the experience of education in terms of behaviors towards others, ability to understand the world (or aspects of it) and an ability to do things in the world'. Furthermore, the transformation is, '... integrally related to the concepts of knowledge and understanding' (Barrow and Woods, 1982).

### Types of Disability/Disorder

Types of disability/disorder are discussed in the present volume in the chapter 'Legal/Typological' and are considered more extensively elsewhere (Farrell, 2008b). They are as follows:

- profound cognitive impairment
- moderate to severe cognitive impairment
- mild cognitive impairment
- hearing impairment
- visual impairment
- deafblindness
- orthopaedic impairment and motor disorder
- health impairment
- traumatic brain injury
- disruptive behaviour disorders (including conduct disorder)
- anxiety disorders and depressive disorders
- attention deficit hyperactivity disorder
- communication disorders (speech, grammar, comprehension, semantics and pragmatics)
- autism
- developmental coordination disorder
- reading disorder
- disorder of written expression
- mathematics disorder.

Recognising types of disability/disorder implies that they can be justified as a way of slicing up reality. This is debated more with regard to some types of disorder/disability (e.g. attention deficit hyperactivity disorder) than with others (e.g. profound cognitive impairments) (Farrell, 2008b, Chapter 1 and passim). Also recognising different types of disability/disorder implies some means of identification.

This may involve the application of criteria such as those set out for some disorders/disabilities in the *Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision (DSM-IV-TR)* (American Psychiatric Association, 2000). It may include paediatric screening or reference to some agreed benchmark of typical development. Detailed assessment of the child and

of the impact of the disability/disorder enables parents, teachers and others to begin to recognize possible implications for learning and development.

### Provision

Provision that promotes the learning and development of special children was the subject of the book, *Educating Special Children* (Farrell, 2008b). Elements of provision discussed in that volume are as follows:

- curriculum
- pedagogy
- school and classroom organization
- resources
- therapy.

Doll (1996, p.15) defines the curriculum as, 'the formal and informal content and process by which learners gain knowledge and understanding, develop skills, and alter attitudes, appreciations and values under the auspices of that school'. The present book sees the curriculum less as 'process' and more as the content of what is taught and learned. This includes the aims and objectives of teaching and learning, and the design and structure of what is taught in relation to areas of learning and programmes within those areas. The curriculum may be envisaged and organized by subjects (e.g. mathematics and art) or areas (e.g. communication and personal education). Relatedly, aspects are sometimes considered as permeating the whole curriculum such as literacy, numeracy, computer skills and problem solving skills. The curriculum may differ in various ways. The levels of all subjects or some may be lower than age typical. The balance of subjects and areas of the curriculum may be atypical. The balance of components of subjects could be atypical. The content of certain areas of the curriculum may be different from those for most children. Finally, assessment may be different perhaps involving small steps to indicate progress in areas of difficulty (Farrell, 2008b, Chapter 1).

'Pedagogy' refers to what the teacher does, in the classroom and elsewhere, to promote and encourage pupils' learning. It may involve individualized learning, group work, discussion, audiovisual approaches, whole class teaching and other approaches (Farrell *et al.*, 1995, p. 4). Pedagogy includes the teacher emphasizing certain sensory modalities in presenting information or the teacher encouraging the pupil to use particular senses. A child who is blind may write in Braille requiring interpretation by touch rather than sight.

Pedagogy may involve approaches distinctive to a particular disability/disorder such as, for children with autism, 'Structured Teaching' (Schopler, 1997). On the other hand, pedagogy may emphasize approaches used also with children who do not have a disorder/disability, for example, slower lesson pace for pupils with mild cognitive impairment. Such teaching may be regarded as representing greater adaptation, but essentially being 'more intensive and explicit' examples of approaches used with all children (Lewis and Norwich, 2005, pp. 5–6). However, it is recognized that teaching intended for pupils with learning difficulties could be 'inappropriate for average or high attaining pupils' (ibid., p. 6).

School organization may involve flexible arrival and departure times for lessons, for example, for some pupils with orthopaedic impairment. Consideration is also given to organizational aspects relating to safety. Flexible arrangements for pupil absences from school can include home tuition and e-mailed work supporting home study. Classroom organization for pupils with disability/disorder may be different from that for most children. For pupils with profound or severe cognitive impairment, it may draw on room management approaches (Lacey, 1991). Regarding a pupil with hearing impairment, the classroom may be organized to optimize his seeing other speakers to help lip reading.

Resources can include aspects of school building design such as those aiding access for pupils with orthopaedic impairment. Classroom design embraces available space, lighting, acoustics, and potential distractions and facilitators to learning. Furniture adaptations include adjustable tables and adapted seating. Among physical/sensory aids, equipment such as alternative keyboards and tracker balls can be adapted. Computer technology can enable links to be made between the child's behaviour and what happens in the environment. Resources also include those for augmentative communication (involving ways to augment partially intelligible speech) and alternative communication (other than speech or writing) (Bigge; Stump *et al.*, 1999, p. 130). Cognitive aids include computer software encouraging responses; symbols used for communication; and computer programmes breaking tasks into very small steps.

'Therapy' may refer to provision intended to help promote skills and abilities or well being. For children and young people with disabilities/disorders, these may include elements that are predominantly physical (e.g. aspects of occupational therapy and physiotherapy); psychological (e.g. psychotherapy); communicative (e.g. speech and language therapy); and medical (e.g. drugs). Therapy and aspects of care are intended to lead to changes in behaviour, attitudes and self-valuing, similar to some of the aspirations of education. They are in this broad sense educational.

### Distinctive

What is distinctive about provision, including education, for special children? In seeking to tackle this question, Lewis and Norwich (2005) consider the following:

- needs common to all children
- needs specific to a particular group
- needs unique to individual children.

They focus on the second and third positions listed above, considering a 'general difference position' (concerning the group-specific needs of pupils with different types of disability/disorder) and a 'unique differences position'.

In the *general difference* position, 'group-specific needs' of pupils with disability/disorder are brought to the fore although needs common to all learners and needs unique to individual learners remain important (Lewis and Norwich, 2005, pp. 3–4). The *unique difference* position de-emphasizes the common pedagogic needs of all children, emphasizes unique differences of pupils and rejects group-specific needs. Favouring a unique difference position, Lewis and Norwich (2005) suggest that with regard to 'pedagogic *principles*' (p. 216, italics added) that, 'the traditional special needs categories . . . have limited usefulness in the context of planning, or monitoring, teaching and learning in most areas' (p. 220).

Contrary to this, this book maintains that a 'group difference position' can be maintained for all types of disability/disorder with regard to profiles of provision including pedagogy. That is, it is possible to identify distinctive provision effective with different types of disability/disorder. This is discussed in this book in the chapter 'Pedagogy' and more fully in the book *Educating Special Children* (Farrell, 2008b).

### Foundations of Special Education

The foundations of special education as presented in this book are the underpinning aspects of contemporary special education. These contribute to the understanding and practice of special education and to provision for different types of disability/disorder. For example, 'psychotherapeutic' underpinnings have particular relevance for pupils with disorders of conduct. However, they may have relevance for other types of disability/disorder,

and provision for pupils with conduct disorder may be informed by other disciplines. This book examines 11 foundational areas:

- legal/typological
- terminological
- social
- medical
- neuropsychological
- psychotherapeutic
- behavioural/observational
- developmental
- psycholinguistic
- technological
- pedagogical.

A chapter is devoted to each foundational discipline, in which examples are given of how it provides insights or practical contributions to special education generally and in relation to particular disabilities and disorders. Aspects of these foundations are selected for their relevance to modern day developments and linked to special educational issues, illuminating both.

### **Academic Progress and Personal and Social Development**

Like education generally, special education implies that what is provided enhances learning and development. Academic progress includes progress in school subjects such as mathematics/numeracy, science or art as well as progress in areas of the curriculum like problem solving skills, computer skills or communication. Personal and social development refers to the wide range of development that education seeks to encourage such as personal and social skills, high self-esteem and concern for others.

Where special education is effective, progress in learning and personal and social development are encouraged. There may be times when pupils do not progress and develop, perhaps because of a debilitating illness. Here the aspiration might be to maintain levels of current functioning or to slow the rate of deterioration. The importance of academic progress and personal and social development is discussed more fully in *Standards and Special Educational Needs* (Farrell, 2001b) and in *Key Issues in Special Education* (Farrell, 2005f).

## The Aims and Methods of Special Education

*Aims* The aims of special education, with regard to pupils with disability/disorder, include the following:

- identifying and assessing pupils with disability/disorder and evaluating whether the disability/disorder is likely to hinder learning and development;
- identifying the distinctive provision that best promotes learning and development;
- identifying foundational disciplines that contribute to promoting learning and development;
- ensuring that elements of provision informed by these foundations promote learning and development.

*Methods* Many methods already in use aid the learning and development of pupils with disability/disorder, for example, tactile approaches for pupils who are blind and behavioural strategies for children with conduct disorder. Such methods may be kept under review to ensure they are benefiting the pupil as expected.

Where newer promising methods are tried, these may be observed, carefully described and analysed to identify which aspects are important and effective. Attempts are made to explain why the approach works and to generalize from particular examples to wider applications and from a small number of pupils to more pupils. Hypotheses may be formed relating to such findings. These may be tested and evaluated leading to accounts of evidence-based practice. Methodology can therefore range from observation and description used for critical reflection (induction) to hypotheses and theory (deduction).

For example, for *reading disorder*, strategies that are used often relate to purported underlying difficulties such as phonological difficulties or visual difficulties. As well as working on associated difficulties, interventions directly tackle reading. This often involves teaching phonological skills necessary for using a phonemic code, and sound–symbol correspondences (Swanson *et al.*, 2003). Where an intervention involves using a phonemic code and sound–symbol correspondences, the implementation of the approach will be observed and described as accurately as possible. Attempts will be made to explain which elements appear successful, aiming to ensure that the approach will work for other pupils with reading disorder (or at least for some of them).

Based on this information, a hypothesis is framed. This might be, ‘for pupils with reading disorder, where the main difficulty appears to be phonological

(perhaps a phonological deficit), the use of a specified phonic based intervention will enhance progress'. This might be made even more precise. 'For pupils with reading disorder, where the main difficulty appears to be phonological, the use of a specified phonic based intervention for ten minutes per day for 2 months will lead to a four month gain in measured reading ability'. This could be expressed more accurately by specifying the particular programme and any adaptations to the curriculum and assessment, pedagogy or other aspects of provision.

In the United States, an enactment of the *No Child Left Behind Act 2002* is that all students including those with disabilities will demonstrate annual yearly progress and perform at a proficient level on state academic assessment tests. Identifying scientific methods and evidence-based practices can contribute to this aspiration; but identifying, implementing and evaluating a range of valid, effective practices is challenging. Also, families and professionals have to decide on the suitability of an intervention or approach for a particular child looking at various options.

Simpson (2005), while considering autism, makes observations relevant to disability/disorder more generally. Ideally evidence will involve peer review and the validation of products and materials through research designs using random samples and control and experimental groups (ibid., pp. 141–142, paraphrased). However, other methods may be appropriate in different circumstances because of 'limited student samples, heterogeneous clinical education programmes, and the need for flexibility in matching research designs to specific questions and issues . . .' (ibid., p. 142). Alternatives might include single-subject design validation or correlational methods.

Parents and professionals will want to know about the efficacy and anticipated outcomes in connection with a particular practice. They will need to know whether anticipated outcomes are in line with student needs; the potential risks (including risks to family cohesion of long term very intensive interventions); and the most effective means of evaluation (ibid., p. 143, paraphrased). Evidence-based practice can inform decisions but these are also influenced by professional judgement and the views of the child and family.

A further method in special education is to consider disciplines and perspectives underpinning it, critically examining their relevance for understanding and practice. This is the subject of this book. For example, the foundational discipline of medicine may be related to special education through consideration of the classifications and procedures for seizures and epilepsy, the implications of traumatic brain injury and the use of medication for attention deficit hyperactivity disorder. Developmental perspectives relating to typically

developing infants may inform provision for older pupils with profound cognitive impairment.

### **Structure of the Book**

Beyond this introductory chapter, this book comprises 11 chapters, each concerning an underpinning aspect of contemporary special education; a conclusion chapter, a bibliography and a combined author and subject index. Each chapter indicates the contribution of the underpinning aspect (e.g. 'social', 'developmental') to special education. This might be in terms of understanding or provision. At the end of each chapter, the section 'Thinking Points' gives pointers to continuing reflection and discussion. A list of sources of further information including books and Internet sites provide further signposts.

The contents of each chapter are as follows.

Chapter 2, 'Legal/Typological', briefly looks at social, political and economic factors informing the context of special education legislation. It outlines recent legislation informing special education in the United States and in the United Kingdom. The chapter describes the main types of disability/disorder, drawing on classifications used in systems in the United States, the United Kingdom and other sources.

Following this, Chapter 3, 'Terminological', indicates the importance of terminology in special education, and illustrates its scope. In particular it examines the 'needs', 'discrimination' and 'rights'.

Chapter 4, 'Social', considers a social constructionist perspective, setting the context by first looking at individual models and other approaches. A social view of disability is considered with particular reference to hearing impairment and orthopaedic impairments.

Next, Chapter 5, 'Medical', considers the scope of the application of medical perspectives and the use of drugs in relation to children with disability/disorder. It focuses on epilepsy, attention deficit hyperactivity disorder and traumatic brain injury.

Chapter 6, 'Neuropsychological', describes some of the techniques used in neurological research and some uses of psychological and related tests in neuropsychology. It considers, in particular, reading disorder, mathematics disorder and developmental coordination disorder.

Following this, Chapter 7, 'Psychotherapeutic', outlines the systems, psychodynamic and cognitive-behavioural approaches. It discusses, in particular, cognitive-behavioural therapy in relation to disorders of conduct, anxiety disorders and depressive disorders.

Chapter 8, 'Behavioural/Observational', considers behavioural approaches to learning with reference to learning theory and looks at observational learning and modelling through social cognitive theory. Learning theory and observational learning/modelling are considered together in their application to conduct disorder and autism.

In Chapter 9, 'Developmental', the main focus is Piaget's theory of genetic epistemology. It examines elements of Piaget and Inhelder's work relevant to contemporary special education and considers implications of Piaget's sensory-motor period for provision for children with profound cognitive impairment.

After this, Chapter 10, 'Psycholinguistics' explores a framework incorporating input processing, lexical representations and output processing, and interventions. Consideration is given to persisting speech difficulties and to specific language impairment.

Chapter 11, 'Technological', explores how technology constitutes a foundation of special education through its enhancement of teaching and learning. It examines the use of technology for visual impairment; orthopaedic/motor impairments and speech disorder. The use of technology to support pupils with challenging behaviour is also considered.

Chapter 12, 'Pedagogical', examines pedagogy in relation to special education, in particular the issue of distinctive pedagogy for different types of disability/disorder. The focus is mild cognitive impairment and moderate to severe cognitive impairment.

The 'Conclusion' draws threads together and suggests implications for future developments.

### **Thinking Points**

Readers may wish to consider the following:

- the extent to which special education is helpfully defined according to 'provision', 'types of disability/disorder', 'academic progress and personal and social development', and 'foundational disciplines';

- how suitable are the aims and methods of special education that have been suggested.

### Key Texts

Farrell, M. (2005) *Key Issues in Special Education: Raising Pupils' Achievement and Attainment*. New York/London: Routledge.

This book argues that raising the standards of educational achievement and encouraging better personal and social development can guide many aspects of special education, from identification and assessment to funding and provision. It uses the England context to illustrate this.

Farrell, M. (2004) *Special Education Handbook* (3rd edn). London: David Fulton.

This book gives the definitions of concepts in special education and related information about the curriculum, resources, pedagogy and other matters.

Farrell, M. (2008) *Educating Special Children: An Introduction to Provision for Pupils with Disabilities and Disorders*. New York/London: Routledge.

This book sets out the provision associated with various disorders/disabilities in terms of curriculum, pedagogy, school and classroom organization, resources and therapy/care.