Janice
Wearmouth

Special
Educational
Needs and
Disability

the basics

Fourth Edition

SPECIAL EDUCATIONAL NEEDS AND DISABILITY

Special Educational Needs and Disability provides a clear, coherent overview of the historical development of the field of special educational, or additional learning or support needs and disability, and discusses important past and current social and political contexts in which this took place, as well as changes in the law across time. It offers broad coverage of a range of needs and disabilities, and how to effectively identify and support the young people who experience such needs.

This revised fourth edition covers recent legislative changes across the UK, an expanded discussion of key areas such as social, emotional, and mental health, a new chapter on literacy difficulties, and further fair, balanced, and open discussion of up-to-date evidence that indicates how young people who experience barriers to their learning are affected by factors associated with such marketisation, for example competition between schools and the academies programme.

Special Educational Needs and Disability serves as essential reading for trainee and practising teachers, members of governing boards in schools and colleges, policymakers, and all those working directly with learners and their families.

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SPECIAL EDUCATIONAL NEEDS AND DISABILITY

THE BASICS

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This volume is dedicated to John, Chris, and Hannah, and the next generation.

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NOTE

Whilst every effort has been made to ensure that details associated with legislation related to SEND/additional learning or support needs across the UK are accurate at the time of writing, as is noted at appropriate points in the text, some changes in the law are envisaged and may well be put into place shortly.

PREFACE

In this book we take the view, along with Bruner (1996), that education is the opening of identities as learners, by which we mean what students think of themselves, what they think they are good (or, conversely, bad) at, what they think they can (or cannot) do and what they believe others think of their abilities. If this is the case, then identification with school in particular, or failure, marginalisation, and alienation from it, will have long-lasting and, often, extremely negative effects throughout their lives. Carrying an identity as a failure in a setting, school, or college may result also in the expectation of failure in other contexts. Reflecting on students' learning and behaviour and finding, with them and their families, ways to address the needs that are identified, whatever the source may be, can at times be challenging but, in the long term, can also be life-changing for the learner, and particularly rewarding for teachers and families. Special educational, additional learning or support, provision is intended for the benefit of the learner. However, as the current author also noted in a previous publication (Wearmouth, 2009, p. 212): 'For the individual teacher the awareness of having contributed to making a difference to a child's learning and, therefore, to future life chances, is priceless. For many of us it makes our working lives worthwhile.'

Chapter 1 sets the scene for understanding frames of reference that are commonly used in schools in relation to the term 'SEND' as it is used in England and, still currently, in Northern Ireland also, to refer to children's learning and behaviour, or 'additional learning' or 'support' needs in Wales and Scotland. We raise the important issue of equity because of its importance in understanding some of the debates in the field and include pen portraits of young people who experience different kinds of disabilities and difficulties in learning and behaviour to illustrate some of the issues in our discussion.

To contextualise the whole field, Chapter 2 first outlines the history of provision for children seen as 'different' from peers on account of the learning, behaviour, or physical difficulties, and particular terms linked with these, that were often used to describe such children. It continues to reflect on how schools' thinking about learning, behaviour, and children's rights has changed over time and concludes by signposting current legislation across the UK.

Next, Chapter 3 begins by discussing human rights legislation and the Equality Act (2010), and continues with an overview of special educational, additional learning or support needs, legislation, and the associated Codes of Practice across the UK.

Chapter 4 notes how, over time, different social or psychological understandings, together with the different frames of reference that are associated with each, have given rise to different interventions to address needs in education. It begins with a discussion of attachment theory (Bowlby, 1952), which has grown in influence over recent years, partly in response to growing concern about young people's emotional and mental health. Subsequently, it discusses the principles of behaviourist views of the learning process, cognitive-behavioural approaches, and then constructivist and social constructivist understandings. It concludes with a problem-solving approach to conceptualising provision for young people who have special educational, or additional learning or support needs.

Chapter 5 focuses on communication and interaction, the first of the four broad areas of need outlined in the *Additional Learning Needs Code for Wales* (NAW, 2021, §2.34) and the *SEN and Disability Code of Practice 0 to 25 Years* (DfE, 2015, §5.32) in England. We pay particular attention to speech and language and what is often called 'autistic spectrum disorder', and discuss what research studies can tell us about these needs, how such needs relate to learning, and how

the ways that they are identified can be addressed through attention to the learning environment, curriculum, and teaching approaches.

Chapter 6 discusses the second broad area of need in the Code of Practice in both England (DfE, 2015) and Wales (NAW, 2021): cognition and learning. It begins by reflecting on what is often called a 'specific learning difficulty' (SpLD), a term relating to certain aspects of human information-processing, and discuss a specific example: dyslexia. It continues by examining difficulties in general – particularly those faced by young people identified as experiencing 'moderate' learning difficulties – and profound and multiple learning disabilities. We discuss Down's syndrome to exemplify learning difficulties that may lie on a continuum between mild/moderate and severe.

Chapter 7 is concerned with aspects of social, emotional, and mental health educational needs experienced by children and young people, and the kinds of behaviour commonly associated with them. Special attention is paid to young people's behaviour experienced by teachers and others as extremely challenging, including that associated with emotional deprivation and trauma, for example, bereavement, attention deficit/hyperactivity disorder (AD/HD), and physical violence.

Chapter 8 relates to ways to understand sensory and physical disabilities and the educational needs that may result. Particular attention is given to hearing and/or visual impairments and physical and motor difficulties, what this means for young people, and ways to support visually impaired students and those with multi-sensory impairments in educational institutions. The final part of the chapter is concerned with physical difficulties, exemplified in particular by dyspraxia and muscular dystrophy.

Chapter 9 focuses on a range of ways to understand and address difficulties in literacy acquisition. It begins by reflecting on some of the evidence about the characteristics of effective teachers of learners who experience difficulties in literacy acquisition. It goes on to discuss what teachers and others might need to know about different theories of literacy acquisition, strategies that are based on these theories, and what kind of family and community support might be appropriate for literacy learning for those who experience needs in this area.

Chapter 10 opens by explaining issues associated with the power of particular forms of assessment, monitoring, and focused feedback. It takes the issue of assessment in the early years as an example of how it should match the age and stage of a child's development and learning. It then continues by discussing principles of different kinds of assessment of difficulties in learning: summative and standardised, formative assessment, and criterion referenced. It then appraises particular aspects of difficulties identified within the four areas of need, continuing with a discussion of the student and family's perspectives on barriers to learning, and statutory assessment of difficulties across the UK and concludes with a framework for planning to address needs at different ages and stages.

Chapter 11 outlines the array of professionals and paraprofessionals and their potential roles in supporting children who experience some sort of need. It begins with those working within settings, schools, and colleges: the special educational needs coordinator (sometimes called 'inclusion manager' or other such term) and teaching or classroom/teaching assistants. It then discusses the role and function of some of the professionals employed by outside agencies, and goes on to discuss challenges in relation to this kind of partnership work with examples of what can happen in practice.

ACKNOWLEDGEMENTS

ABBREVIATIONS

AAC	Alternative and Augmentative Communication
ABA	Applied behaviour analysis
AD/HD	attention deficit/hyperactivity disorder
ADOS	Autism Diagnostic Observation Schedule
AFL	Assessment for Learning
AI	Artificial intelligence
ALN	Additional learning needs
ALP	Additional Learning Provision
ASD	Autistic Spectrum Disorder
ASNTS	Additional Support Needs Tribunals for Scotland
BD	Behaviourally-disordered
BDA	British Dyslexia Association
BPS	British Psychological Society
BSL	British Sign Language
CAMHS	Child and Adolescent Mental Health Services
CAMHS	Child and Mental Health Service
CBT	Cognitive behaviour therapy
CBT	Cognitive behavioural therapy
CCG	clinical commissioning group
CORC	Child Outcomes Research Consortium
CPD	Continuing professional development
CSIE	Centre for Studies on Inclusive Education

DE	Department of Education
DECLO	Designated Education Clinical Lead Officer
DELTA	Deaf Education through Speaking and Listening (DELTA) organisation
DENI	Department of Education Northern Ireland
DFE	Department for Education
DISS	Deployment and Impact of Support Staff
EA	Education Authority
EAL	English as an Additional Language
EBD	Emotional and behavioural difficulties
ECHR	European Convention on Human Rights
EDTA	Effective Deployment of Teaching Assistants
EHC	Education, health, and care
EP	Educational psychologists
ESN	Educationally sub-normal
EYFS	Early Years Foundation Stage
FEI	Further education institutions
HI	Hearing impairment
HMI	Her Majesty's Inspectorate
ICD	International Classification of Diseases
ICT	Information and communications technology
IDP	Individual Development Plan
JCQ	Joint Council for Qualifications
LA	Local authority
LEA	Local education authorities
LOGMAR	Logarithm of the Minimum Angle of Resolution
LSA	Learning support assistant
MEP	Multi-element planning
MLD	Moderate learning difficulty
MSI	Multi-sensory impairment
NAS	National Autistic Society
NDCS	National Deaf Children's Society
NIB	National Institute for the Blind
NIPE	Newborn and Infant Physical Examination
NQT	newly qualified teacher
OAES	otoacoustic emissions
OCR	Optical character recognition
PD	Physical disability
PDA	Pathological demand avoidance

PECS	Picture Exchange Communication System
PLI	Pragmatic language impairment
PLP	Personal learning plan
PMLD	Profound and multiple learning difficulties
PSHE	Personal, social, health and economic
SD	Standard deviations
SEBD	Social, emotional and behavioural difficulties
SEMH	Social, emotional and mental health
SEN	Special educational needs
SENCO	Special Educational Needs Co-ordinator
SEND	Special educational needs and disability
SFBT	Solution-focused brief therapy
SFR	Statistical first release
SIT	Standardised intelligence test
SLCN	Speech, language, and communication needs
SLD	Severe learning difficulties
SLT	Senior leadership team
SPLD	Specific learning difficulty
SSE	Signs Supported English
TEACCH	Treatment and Education of Autistic and related Communication Handicapped Children programme
TIES	The Instructional Environment Scale
TS	Tourette syndrome
VOCA	Voice output communication aid
WHO	World Health Organization
YSAC	York School Attendance Committee
ZPD	Zone of proximal development

INTRODUCTION TO THE FIELD OF SPECIAL EDUCATIONAL, OR ADDITIONAL LEARNING OR SUPPORT NEEDS AND DISABILITY

INTRODUCTION

The way in which educational provision is organised at any particular point in time reflects current values, beliefs, and political ideology in a society (Wearmouth, 2009; Broadfoot, 2011) as well as its previous historical development. It is obvious, too, on an individual level, that our own past and current experiences and values are bound to influence the way in which we ourselves interpret difficulties and barriers to learning experienced by some young people in settings, schools, and colleges. This includes the regard in which we hold other people's children and what we are prepared to do, or think we should do, to support them. It is really important to bear this in mind when we think about policy and practice in the area of special educational and/or additional learning or support needs in the UK today.

As discussed throughout this book, over the years special education provision has been characterised by a number of recurring themes. For example, there is the question of whether to separate off children who experience difficulties of various kinds into special segregated provision or integrate them into the mainstream. We cannot help but wonder how our views about where particular groups of children should be educated would have been influenced in the nineteenth century when teachers were paid by results – the

so-called 'payment by results system' that operated between the 1860s and 1897 when the annual government grant in primary schools in England and Wales, rising to about half, depended in part on how well pupils answered in tests conducted by HM inspectors (Rapple, 1991). Then there is the issue of what kind of curriculum should be offered: whether it should be the same for all children or different for some groups. As we will see, in England it took exactly 100 years from 1870, when universal primary education was introduced in this country, before 'universal' was applied to all children. It was not until the Education (Handicapped Children) Act, 1970, that children who experienced the most severe cognitive difficulties were deemed to be educable and legally entitled to education.[1] Over the years there has also been discussion about whether and how to classify children and the various barriers to learning they experience. An important issue here is the question of how possible it is clearly to identify the differences both between the groupings themselves and the children so classified and others.

This chapter includes a discussion of frames of reference that are very commonly used in schools in relation to the term 'SEND' as it is used in England and also, still currently, in Northern Ireland, to refer to children's learning and behaviour. It includes a brief discussion of different ways in which the 'needs' of each child can be viewed in relation to the difficulty that is experienced and what they imply about the individual learners so described. We raise the important issue of equity because it is so important in understanding some of the challenges and debates in the field.

A number of pen portraits of young people who experience different kinds of disabilities and difficulties in learning and behaviour serve to illustrate some of these issues in our discussion of frames of reference, discourses, and potential effects of labelling.

FRAMES OF REFERENCE, DISCOURSES, AND LABELLING ASSOCIATED WITH SPECIAL EDUCATIONAL OR ADDITIONAL LEARNING OR SUPPORT NEEDS AND DISABILITY

Identifying barriers to individuals' learning and progress in education carries with it its own issues that we cannot ignore. We discuss some of these – for example, how to assess the barrier, who should fund

the additional support that is needed, where the cut-off point might be between who receives funding, and so on – at a later point in this book. For now, however, we consider three salient and related issues: the frames of reference through which needs might be viewed in educational institutions and outside and discourses associated with these, and the potential effect of labelling a learner in an educational institution.

FRAMES OF REFERENCE

Over time, a number of frames of reference have been developed and become important in the world of special educational needs and disability (SEND), or additional learning or 'support' needs.[2] What we mean by 'a frame of reference' is, broadly, the way we, as individuals, look at and interpret the world and our surroundings. Here we are referring to ways of viewing what constitutes SEND and what attributes might automatically be conferred on young people with the SEND label. Our personal frames of reference – the lenses through which we view the world – can derive from, for example, our families, teachers, the experiences we have had, our culture, education, the media (television, newspapers, the radio), social media, and so on. It is important to recognise frames of reference as they are used in educational contexts both to understand policy, practice, and provision and the way in which they influence our thinking.

DISCOURSES

In education the discourses we use, that is, the ways we speak or write about teaching, learning, and our students, for example, are closely linked to our frames of reference. The French sociologist, Michel Foucault (1980, p. 131), talked about the types of discourse which are used within any particular society as 'its regime of truth': the particular ways of speaking or writing that dominate our thinking and make it difficult to see things from a different perspective. In schools, the expression 'special educational needs and disability' is used in relation to students' learning and behaviour. We might ask ourselves whether the frame of reference and discourses associated with this label really enable us to understand and respond to learners who experience difficulties as if they are individuals with the

same entitlement to a supportive, positive education as their peers. These days, with inclusion in schools and society in such high focus, the practical consequences of our answer to this question are very important for us all. As Bruner (1996) noted 20 years ago, what we experience in education is fundamental to the opening of identities. It is crucial to the formation of 'self': what we think about ourselves and our potential for learning and achieving, what we believe others think of us, and so on. Schools and colleges judge students, and students respond by judging themselves in the way they have been judged. What happens in educational institutions therefore plays a critical part in shaping students' self-efficacy, that is, their ability, responsibility, and skill in initiating and completing actions and, for this reason, to the construction of positive feelings about being able to cope with the world of school and, in turn, the global community.

We might illustrate this point with reference to 'James'. Even at the age of seven or eight, verbally he was articulate, had a very wide vocabulary, and enjoyed composing poetry. Unfortunately for him, his spelling was so poor that if he did not read back what he had written immediately after finishing a poem he could not do it. To adults his written work was indecipherable. The frame of reference – or lens – through which his teachers in his junior school years interpreted his inability to express himself coherently and intelligibly in writing was that this was the characteristic of a 'slow learner'. As a result he was withdrawn from the mainstream classroom and taught with other learners also categorised as 'slow'. Fortunately for him, other teachers later on took a different view. They recognised that here was a young man who, in circumstances where people listened to him, could be articulate and, apart from difficulties in literacy acquisition, very able.

Frame of reference that explains difficulties in literacy and its consequences

A few years ago, 'James', aged 21, graduated with an Upper Second Honours degree from a well-known English university. He went on to study for his master's degree. He had clearly become academically very successful with very high

expectations of himself. High expectations of him by others was not always the case, however.

In his primary school, aged nine, 'James' was placed in the lowest ability groups for reading and writing in his class and withdrawn for special lessons on account of serious difficulties in literacy acquisition. He later recalled his experiences at that point in his education:

> First of all, *when I went to the lessons, I was called out in front of the class, and they were referred to as 'special* lessons', and politically correct as the teacher thought that was, it really wasn't. Kids are cruel, and I felt really targeted and singled out.

His classmates had recognised and responded to the frame of reference regarding 'slow learners' used in the school and marginalised James as a result.

James, however, was clearly dyslexic, as later assessment by an educational psychologist confirmed. These days severe dyslexia might well be classed as a disability under the Equality Act, 2010 as we note below. However, dyslexia was not a label that was recognised in James's local education authority at that time. He remembered separation from competent literacy learners in the classroom and tuition in low-level 'remedial' literacy activities that, to him, were irrelevant and meaningless and made him feel hopeless, helpless, angry, and frustrated. The conflict between the provision made by the school and what he felt he needed and deserved and his own sense of impotence in the situation evoked great feelings of defiance and frustration:

> The lessons that they gave seemed very simple. They were like obvious repetitive stuff, going over stuff that I found simple ... I think the type of work that it was, was perhaps, writing out a page of like, a hundred, you know a full page worth of say a letter at a time, say D, repeating it over and over again, and although my handwriting wasn't fantastic, I could write the letter D, but then that seemed to bear no relation to me writing a word.

The category of 'slow learner' had been created in that school in order to manage removal of less literate children into special literacy provision, and it almost hovered in the air ready to 'gobble up' likely candidates such as James (Mehan, 1996).

James's experiences in secondary school were very different, however. Teachers responded to his difficulties through a different lens: one that saw him as potentially an active agent in his own learning and capable of making sense of his own world. They engaged him in two-way discussion about the best ways to address his learning needs. With the added motivation of teachers expecting that he could learn, despite extreme tiredness every day, James began to look for ways to achieve and overcome his difficulties:

> I became very strategic ... it was a strategy I worked out for myself [that] seemed blatantly obvious. If the course provides a syllabus, and the examiners can only ask you on that syllabus, then why not learn everything in the syllabus, and keep to that? Basically for the sciences, I could get a book, and just work through each point of the syllabus, and if I knew it then ... I didn't almost need the lessons. ... I basically listed each point of the syllabus, and found the relevant piece of information and picked it out.

Self-taught study skills, supported by sensitive, aware teachers who responded to James's initiatives and a growing sense of personal agency, enabled James to achieve success at the General Certificate of Secondary Education level (GCSE):

> ... before then it was blips ... But when I did my GCSEs, I think all told I took thirteen, I got two A stars, six As, five Bs. By then people were like, 'Bloody hell!' and then it got to my A-levels, and in the three sciences I got three B grades which was quite good.

These skills, refined for study at degree level, enabled James to extend responsibility for his own learning until his graduation.

(Adapted from Wearmouth, 2004b, pp. 60–67)

Interestingly enough, and as discussed in Chapter 6, in recent years research into what comprises 'dyslexia', its decoupling from 'intelligence', and greater understanding of its effects on individual learning and achievement in schools and colleges, has led to a severely dyslexic individual potentially being classed as 'disabled'. A classification of disablement may give him/her a legal entitlement to 'reasonable adjustments' in the educational or work context under the terms of the Equality Act, 2010. Hence, for example, a severely dyslexic university student may be offered use of a laptop computer as a 'reasonable adjustment' to enable access to the academic curriculum.

Sometimes personal experiences with students can open our eyes to some of the issues related to the labels we give to students.

Discourses around challenging behaviour

'Jamie S', an 11-year-old boy, was also identified as 'having problems', but this time categorised as both disruptive and lazy. He was placed in the 'remedial' band, along with students who experienced difficulty in conceptual development: language, problem-solving, communication, and abstract thinking. I taught his group Classical Studies, which Jamie loved. He was the first with the answer to everything and was highly articulate. At the end of one year, he corrected my version of a tale from Greek mythology that I had related many months before. He was right; I was wrong. There was a clear disjunction between the label 'remedial' and my observation of him as articulate, interested, and engaged in his learning. He loudly resisted writing tasks because, as I later (but much too late for Jamie) realised, like James above he was dyslexic – and, like James, was educated in a local authority where dyslexia was not recognised. In some lessons he expressed his feelings of frustration with the lack of cognitive challenge and pressure to write with obviously hostile behaviour. In my lessons I was relying largely on narrative so pressure to cope with text did not apply. In the hierarchy of power and influence in schools, those with a professional responsibility for sustaining existing

> organisational structures may well experience the rejection
> of school provision by students such as Jamie as challeng-
> ing to the existing order as well as to themselves. They may
> then go on to interpret the behaviour of these students, and
> the students themselves, as deviant and 'needing' to be
> cured by a special intervention programme.
>
> (Wearmouth, 2003)

LABELLING

It is also important to acknowledge some of the issues associated
with labels in the field of special educational, or additional learning
or support needs, for example, how they come to dominate our
thinking about those young people labelled in this way, the poten-
tially stigmatising effect of the label, and whether, in fact, the label
tells us anything specific enough about the individual young person
to be of any real use in supporting them to overcome the barriers
they may face.

Labelling theory (also referred to as societal reaction theory) was
originally developed in relation to what was seen as 'deviant' behav-
iour in society. This theory analyses how groups in society create
and apply definitions – labels – for behaviour seen as 'deviant'. In
societal terms 'deviance' means behaviour that is unacceptably dif-
ferent from the norm. The theory relates to how labels emerge, how
some social groups develop the power to impose labels onto selected
other groups, and the consequences of being labelled. In the context
of special educational or additional learning or support needs, label-
ling theory is often used to explain the way that labels are attached
to students whose progress in learning and/or behaviour would be
significantly different from, that is, below, that of peers if they do not
have special or additional support,

The American sociologist Howard Becker is acknowledged as
being the most influential voice in formulating labelling theory in
his book *Outsiders* (1963). He stated 'social groups create deviance
by making the rules whose infraction constitutes deviance; and by
applying those rules to particular people and labelling them outsid-
ers' (Becker, 1963, p. 8). In other words, behaviour and individuals

are not inherently unacceptably different in some way until some social groups can successfully label them as such. He explained that, if individuals or groups are labelled as unacceptably different – 'deviant' – then they will be affected by this and 'there will be important and often unanticipated consequences at the level of behaviour' (Abercrombie et al., 1988, p. 132). An individual engages in a behaviour that is viewed by others as inappropriate, others categorise the person with a negative label, and eventually the individual internalises and accepts this label. Central to this theory is the understanding that the negative reaction of others to a particular behaviour seen as unacceptable (deviant) is what causes that behaviour to be labelled in a negative way as 'not normal'.

STIGMA

Closely related to the issue of negative labelling is the issue of stigma. Stigma is an attribute that carries a negative stereotype. A highly influential figure in this field of research is Erving Goffman. His (1963) publication *Stigma: Notes on the Management of Spoiled Identity* is a book about what it is like to be a stigmatised person, someone who is labelled as abnormal in some way by society. Goffman (1963) classically defined stigma as a deeply discrediting attribute that might be easily seen, such as body size or, as in educational contexts, be the experience of difficulties in learning of various kinds. For Goffman, stigma is a general aspect of social life that affects everyday interactions with others. He gives the example of the way in which those who are stigmatised may be wary of engaging with those without the stigma, and those without may disparage, overcompensate for, or attempt to ignore stigmatised individuals. Trying to hide the stigmatised characteristic can lead to further negative experiences, for example isolation, depression, and anxiety. It may be that stigmatised individuals can acquire a sense of belonging by forming or joining self-help or other positive inclusive groups.

Link and Phelan (2001) define stigma as the combination of four processes: labelling human differences; negatively stereotyping such differences; separating those labelled in this way from 'normal' people, and loss of status and discrimination against those negatively labelled. Wearmouth (1999) cites the case of 'Jack', an adult male

prisoner who was an inmate of one of HM prisons at the time she interviewed him. He had been labelled as 'maladjusted' at a very early age, a label that, in his view, had stigmatised him and 'spoiled' his identity for the rest of his life up to the point of interview:

> Jack carries with him an identity that was 'spoiled' (Goffman, 1963) by the early attachment of the label 'maladjusted' which he learned from experience was associated with poor achievement and a lack of personal value. In his view his life chances were irreparably damaged not so much because his schooling was 'special' and segregated but because the assumption was that he and his peers were lacking in intelligence and should be compliant. This view of 'maladjusted' pupils led to an unstructured, careless, authoritarian approach by his secondary teachers. In prison, he had chosen to study in the education facility provided by the authorities because he believed that he had the potential for formal academic learning. Otherwise he would have believed that attendance in 'education' serves no purpose.
>
> (Wearmouth, 1999, p. 20)

INFORMATION CONVEYED BY 'SEND' OR 'ADDITIONAL LEARNING' OR 'SUPPORT NEEDS' LABELS

Of course some young people experience sensory and/or physical difficulties, multiple and profound difficulties in learning, language issues, and so on. As we discuss more fully in later chapters, educational institutions are required to operate within the law of a country. Formal definitions of 'special educational' and 'additional learning' or 'support' needs are employed in legislation, government publications, regulations, official circulars, consultation, advice, and guidance documents in England, Northern Ireland, Wales, and Scotland where these terms are frequently used to label the young people themselves. However, what is meant by the label is not necessarily as straightforward as it may sound. We might take the examples of terms used in England and Scotland. In England, under the terms of the Children and Families Act, 2014, Part 3, §20(1)), a child or young person has special educational needs if he or she has a learning difficulty[3] that calls for special educational provision to be made for him or her. That is, a young person only has 'special educational needs' when special provision is required to meet them. We discuss the

issues involved with this definition later in Chapter 3. Suffice it to say here that what is meant by 'learning difficulty' is not straightforward.

In Scotland, a child or young person has 'additional support needs' if 'for whatever reason, the child or young person is, or is likely to be, unable without the provision of additional support to benefit from school education provided or to be provided for the child or young person' (Scottish Government, 2017, p. 17).

It is clear from this that, just as in the case of 'special educational needs', the 'additional support needs' label tells us nothing specific enough about a young person and his or her learning to begin to conceptualise what might be done to ensure that s/he can access the curriculum on offer, because the term covers a whole range of areas. In addition, labelling learners, for example, as 'special needs' children, or children 'with SEND', or 'additional support' children is highly problematic for other reasons. It is not simply the complexity of the term within the legal definition that is challenging but also its potentially stigmatising associations, together with issues of power over decision-making.

Connotations of the 'need' label

Frames of reference associated with the 'need' label may carry positive or negative connotations in relation to individual children. On the surface, the notion of fulfilling a 'need' conveys a sense of kindliness. In practice, however, the kind of special or additional provision that is made may imply a value placed on learners (Salmon, 1995). There may be an assumption of agreement between all the interested parties about what is 'needed' which often (but not always, of course) ignores 'crucial issues' about the lack of power that may be allowed to learners and their families in the decision-making process.

In schools, as Fulcher (1989) points out, staff in school or college settings may react to children's difficulties in a number of ways. For example, some might use a frame of reference concerned with what is 'wrong' with children and how this 'problem' can be dealt with. Focusing on what is wrong with a person means using discourses that emphasise difference or deficiency, where 'deficiencies' can be 'treated' like an illness. It can often be experienced, especially by the learners themselves, as a very negative way of meeting needs. Where use of the label 'special educational needs and/or disability'

depends on the sense of deficiency, it is often interpreted as reflect-ing a 'medical' or 'deficit model' of difficulties in learning and/or behaviour. This model has a sense of being in some way inferior or distant from the norm, for example, *dis-*, *un-*, *-challenged*, *difficulty*. This way of speaking and writing about students' difficulties may in itself block positive thinking about approaches to diversity and difference.

Other people's frames of reference might relate to children's well-being and their own moral duty to help them. They may worry about the child and feel sympathy for the child's struggles. In some situations, the difficulties that children experience may be inter-preted as a tragedy for the individual and/or the family, and the children treated like 'charity cases'.

Another frame of reference for understanding difficulties might be to see the context in which learning takes place as a potential barrier. At an institutional level, the onus would then be on the teacher to examine the physical environment including the resources, teaching approaches, the difficulty and/or interest level of the task or activity to identify how these factors can act as facilitators for, or constraints on, learning. In a wider social context, particular factors can turn some differences into disadvantages. One might ask, for example, what part economic deprivation and poverty contribute to difficul-ties in learning experienced by students and the extent to which obstacles to learning can arise from the social conditions in which those students live. Enough evidence has been accumulated about the detrimental effect of hunger on learning to acknowledge the reality of this for some students (APA, n/d). Overall, then, from a contextual viewpoint, it might be a whole host of one or more fac-tors that create barriers to students' learning: economic, government policy, institutional practices, broader social attitudes, inappropriate physical surroundings, to name but a few.

Sometimes, as discussed below, this may be associated with a view that interventions should be planned by experts and 'done to' the child with SEND. Cole (2005) reports her own study of the views of teachers who were mothers of children with special educa-tional needs and notes how the perspectives of the mother–teachers changed when their own children were identified as experiencing difficulties. Although the specifics of what they wanted for their chil-dren in terms of provision differed, in the end they wanted to see

their children included in the community. What they came to value as 'inclusion' were the small things that professionals who tried hard and demonstrated good faith did to make their children and themselves feel included.

The use of the word 'need' is extremely sensitive in the context of education. In some parts of the UK 'need' in education is seen to arise as the result of some kind of deficiency in an individual. For example, in the same way that a starving person 'needs' sustenance, a young person with special educational needs 'needs' special provision to access the school or college curriculum. It is not simply the word itself that is at issue, however, but the question about who has the power to decide which children have needs, what those needs are, and how these should be met (Armstrong, 1994). There is also a question about appropriate expectations of children identified as 'having' SEN (now SEND). There is a strong relationship between teachers' expectations and student achievement, self-esteem, and development that has been well documented since the seminal work of Rosenthal and Jacobson (1968). Salmon (1995) comments on her perception that the term SEN is too often associated with a sense of failure to come up to the mark. Instead of signifying belonging and entitlement, she sees the terms *special* and *need* as 'weasel words' with connotations of helplessness and inadequacy. They are used to justify relegating the problem to a specialist, whilst at the same time leaving teachers 'feeling helpless and deskilled' (Salmon, 1995, pp. 73–74). In a similar vein, Corbett (1996) comments that students with the special needs label can become marginalised by schools. She asks, 'What does "special" mean? If we detach this word from its anchor in "educational" we can see that "special" does not mean especially good and valued unless we use a phrase like, "you are a special person".' She notes that 'special' 'is linked to needs, implying dependency, inadequacy and unworthiness' (Corbett, 1996, p. 3).

Not all educators take the same view, however. Some, for example, Cole (1990), argue that identifying children's 'special educational needs' has a very humanitarian aim. This is to provide additional resources, develop specialist methods to address particular difficulties in learning, or overcome the effects of a disability in order that children can benefit from their education. Without identification of individual needs it is impossible to justify individual attention.

Interpretations of 'need'

'Melvin', aged 13, was small, thin, frequently hungry, and dirty. He had the reputation of being an incorrigible kleptomaniac. Several times he was found stealing from peers, staff, the local shops, and people queuing at the bus stop near the school. Whilst still only 12, he had stolen a local bus and driven it along the high street. He was caught because he was so small that he could only see through the spokes of the steering wheel and passers-by reported a bus travelling along with no driver. Some of his teachers saw him as intrinsically bad and wanted him to be excluded permanently because they thought he was a threat to his peers and to the school. What he 'needed' was expulsion from mainstream and treatment in a special school. The educational psychologist thought he 'needed' hypnotherapy, to 'treat' and 'cure' him. Others took a more charitable view. His problem was not badness within himself, but neglect by his family. They felt that what he really 'needed' was food and clean clothes and that then he would be 'sorted out'.

(Adapted from Wearmouth, 2009)

ADDRESSING IDENTIFIED NEEDS THROUGH THE PRINCIPLE OF EQUITY

The past 40 years have witnessed changing official attitudes world-wide towards understanding and addressing barriers to learning of various kinds and disability. We wish at this point to highlight the importance of understanding the basic principle of equity in education that underpins provision to meet identified educational needs in British law, as well as law in many other countries. Equity is not the same as equality of opportunity. Equity means putting in the extra or additional step that is required for some learners who experience barriers to their learning to access the same broad balanced curriculum as their peers. At this point you might choose to access the visual images that are available on the internet to illustrate

what is meant here, for example, https://interactioninstitute.org/illustrating–equality–vs–equity/ (accessed 14.11.21). This image illustrates the requirement to put in a special or additional 'step', where it is needed, for all learners, of whatever 'height', to look over the metaphorical 'fence' so that they can, metaphorically, watch the same things going on in the next field as their peers. In British law, young people with identified needs that are serious enough to warrant special or additional provision in order that they can access the same curriculum as peers have an entitlement to have that provision put into place in order that they have the same opportunities as peers to make progress and thrive. Whether or not the curriculum on offer, or the learning environment, or the pedagogy in the educational institution are seen by teachers, families, the learners themselves, and wider community groups as appropriate for all young people or instead, as creating barriers to learning for some is, of course, a different matter. Like most of the rest of the world, in the UK, we have a pluralist society, where different interest groups sometimes have different opinions about what would be supportive of their children's learning needs.

DIFFERENCES IN VIEWS ABOUT EQUITABLE PROVISION

Locally and nationally different pressure groups pursue a wide variety of conflicting goals. For instance, many people within the deaf community feel that it is vital to their culture that their children go to their own schools. They want them to be allowed to learn within a signing environment that draws upon a rich heritage and sense of self–identity. Some organisations, such as Barnardo's and Scope, run their own schools. In many local authorities, too, it is possible to find campaigns run by schools and parents to keep special schools open. Equally, organisations such as the Centre for Studies on Inclusive Education (CSIE), Parents for Inclusion, and the Alliance for Inclusion work hard to promote the closure of special school provision and the development of mainstream schools that are open to all. Similarly, it is possible to find individual parents and children involved in comparable battles. The press and internet are full of stories about people fighting either to get their child into (or back into) a mainstream setting or for them to be removed from mainstream and placed in a special school.

INCLUSIVE OR SPECIAL SCHOOLS?

The tension between including children with difficulties and segregating them into special provision is one of the debates that has surfaced repeatedly, as we commented at the beginning of this chapter. 'In every age, many concerned professionals have been reluctant to segregate the handicapped' (Cole, 1990, p. 106). In this sense one might well ask what 'equity' means if the provision put into place does not suit what one side or the other deems as most effective in meeting needs. The Sharpe Report of 1898, for example, contains a report from Dr James Kerr of the Bradford Schools Board that teachers wished 'to get rid of these [so-called "feeble-minded"] children' so that they would have fewer problems in schools and classrooms (Education Department, 1898, p. 19). However, another contributor to the report stated that opinion was divided on the subject: 'There appears to be amongst the teachers … a general agreement that the children, where they are tractable, are as well, if not better, in the ordinary schools under ordinary arrangements' (Education Department, 1898, p. 216). Indeed, many teachers were reported as wanting 'to exclude only the openly disruptive children and the severely handicapped' (Cole, 1990, p. 102).

Decisions about whether inclusive mainstream, or special, schools are more likely to meet children's learning needs are not always clearcut. Two groups of students about whom teachers often express very serious concerns are those who experience profound and complex difficulties in learning who may also have acute physical disabilities, and those whose behaviour is perceived as very threatening and disruptive. It may be that some students are so vulnerable that the overriding consideration for them is a protective environment where their individual care needs can be considered together with their education. Whether the actual location is a mainstream or special site may be of less relevance than other considerations. The quality of the specialist facilities to support children's physical requirements, the level of understanding between students and staff, and the effectiveness of the system of communication between home and school are exceptionally important irrespective of location. In relation to the second, the proviso that students 'with special educational needs' should be educated in mainstream schools provided that this is compatible with the education of peers is often seen as the justification for placement in an alternative location.

In 1997, the Department for Education and Employment issued a Green Paper *Excellence for All Children* to which over 3,000 parents/carers responded. The ratio of parental responses favouring special as opposed to mainstream provision for students who had Statements of Special Educational Needs was 20:1. The sample of parents responding cannot be considered a cross-section of those whose children had a Statement. Mostly these Statements referred to educational needs arising from sensory impairments or multiple and complex difficulties in learning. One of the reasons given for supporting special provision was that physically disabled children were often perceived to suffer at the hands of non-disabled peers. 'Children can be treated like, and feel like, a freak if they are integrated as individual disabled children' (letter from parent). One parent wrote: 'The worry caused when your child is being bullied or feeling depressed affects the whole family. Taking an Asperger child out of that environment greatly increases the quality of the child's life as well as the family'. There was also a view that, although the same opportunities are often not available to students in special schools as those in mainstream, this does not mean these opportunities automatically become available if the child is moved into mainstream. These opportunities must be made available within the special schools rather than transferring the children to mainstream. In addition, there was a perception of intolerance by both children and staff in mainstream, of gross dissatisfaction with levels of resourcing, staff training, awareness and understanding in mainstream, and a perception that special schools constitute a 'reservoir of shared knowledge and expertise in teaching' of students with specialist needs. The minority of parents wanting a mainstream education for their children had equally strong views on their children's rights to be respected as full members of society. In preparation for this they felt it most appropriate that they should be included in local mainstream schools with additional provision to meet their individual needs.

The Ofsted (2010) review in England found that no one model – such as special schools, full inclusion in mainstream settings, or specialist units co-located with mainstream settings – worked better than any other. As we see below, the presumption in the most recent legislation in the UK, the Children and Families Act, 2014, is that young people should be educated in mainstream, albeit with certain provisos. The effective practice seen during the review encompassed

a wide range of models of provision, often with significant flexibility in the way in which services were provided within any one local area. However, it became apparent during the review that the pattern of local services had often developed in an ad hoc way, based on what had been done in the past rather than from a strategic overview of what was needed locally. The key implication of these findings was that any further changes to the system should focus not on tightening the processes of prescribing entitlement to services but, rather, on improving the quality of assessment and ensuring that where additional support is provided, it is effective. Ofsted felt that it was important to develop specialist provision and services strategically so that they are available to maintained and independent schools, academies, and colleges. Legislation should be simplified so that the system is clearer for parents, schools, and other education and training providers. It is significant that the most recent legislation, for example, the 2014 Children and Families Act in England, highlights the importance of families' and parents' opinions as well as cost effectiveness. Those providing services for children are required to demonstrate that they have taken account of what both learners and families say, and also focus on the outcomes for the children and young people concerned.

SUMMARY

In this Introduction we have seen how important it is to recognise the frame of reference within which the special educational, or additional learning or support needs of children are understood. In the current author's experience of teaching in eight different schools, it is very clear that this strongly affects how we treat them and the kind of provision that is made. It is essential that we all understand what being identified as 'having' a 'special educational' or 'additional learning' or 'support' need or disability can mean for a young person and that person's family and what might be entailed in addressing such a need. Then we can see each learner as an individual and respond to both their strengths and interests in addressing needs in ways that are respectful, inclusive, and predisposed to making progress in education in ways that enhance future life chances.

NOTES

1 In Scotland an Act in 1974 gave education authorities the responsibility of educating children who, up to that time, had been seen as 'ineducable and untrainable'.

2 'Special educational needs and disability' is the term used in England and still, at the time of writing, in Northern Ireland also. In Wales the related term is 'additional learning needs', and in Scotland 'additional support needs'.

3 Or disability in England.

2

SPECIAL EDUCATIONAL, OR ADDITIONAL LEARNING OR SUPPORT NEEDS AND DISABILITY

Evolution of the field

INTRODUCTION

There is nothing 'set in stone' about the terms 'special educational', 'additional learning', or 'support' needs. These terms belong to particular education systems in particular societal contexts at a particular point in time. They are constructions that we might think of as a useful administrative convenience for identifying barriers to students' learning and progress in relation to the expected framework of progression in schools and the kind of provision that will address these barriers. To understand the law, policy, practice, and provision in educational institutions that pertain in the second decade of the 21st century, it is important to acknowledge the way in which these unfolded and metamorphosed over time in relation to changes in society. It is imperative also to contextualise from a historical position the use of frames of reference and discourses associated with special educational needs, additional learning or support needs and disabilities in order to understand the significance of their use in education these days.

In this chapter we discuss ongoing debates about why, at any one point in time, it was – and still is to some extent – seen as important to make 'special' or 'additional' provision for some learners; provision that might be made within mainstream institutions or in a special sector in education, how this should be organised, and what

a 'special' curriculum might comprise. This includes the question of why a special education sector was developed in the first place and what purpose it might fulfil for society. To answer this question, we need to know something about the social context in which that sector developed. This chapter addresses the issues outlined above and other questions also: were special education systems created by caring professionals wishing to more effectively address the needs of children in difficulty? Is special education provision essentially benevolent? Did it evolve primarily to help children who were different in some way, or who experienced difficulties? Did special educational provision develop to serve the economic and commercial interests of society? Did these interests dictate that as many people as possible with difficulties should be productive and contribute to an industrial society? Certainly, businessmen 'played a part in the founding of pioneer establishments for the deaf and for the blind, and … throughout the 19th century trade training took up much of the lives of the handicapped attending them' (Cole, 1990, p. 101). Did it, perhaps, develop to provide a means to exclude troublesome learners, or learners who required much of the teacher's time, from mainstream classes? For example, when a new national system of secondary schools was designed in the 1944 Education Act, did the smooth running of those schools demand the exclusion of some learners, for example, those categorised as 'educationally sub-normal'? Are there vested interests from, for example, the medical profession and psychologists that support the existence of special provision?

This chapter first offers an overview of the history of provision for children seen as 'different' from peers on account of the learning or physical difficulties they experienced or the behaviour they displayed, and highlights the kinds of discourses and particular terms linked with these that were often used to describe such children. It continues with a reflection on the way that schools' thinking about learning, behaviour, and children's rights has changed over time and concludes by pointing forward to current law across the UK.

EDUCATION PROVISION FROM THE MID-18TH CENTURY

Special education provision should be seen in the context of the education system that prevails at any one point in time. In the mid-18th century, for example, most people lived in the countryside, but by

the end of that century a greater proportion lived in towns as the Industrial Revolution took hold. With no welfare state to support them, the poor needed income from their children's labour as well as their own so, for them, education was not seen as a family priority. 'Special' education began in the 18th century in a societal context where child labour was the norm, therefore it was not until 1870 that universal primary education was mandated by law.

SPECIAL EDUCATION PROVISION: THE EARLY YEARS

As Warnock (DES, 1978, Ch. 2) notes, across the UK and beginning at the end of the 18th century as with 'ordinary' education, early institutions for children who experienced difficulties of various sorts were founded by individuals or by charities, and catered only for a few. 'The very first schools for the blind and deaf were founded in the life-time of Mozart' (DES, 1978, p. 8). Later, central government intervened, initially to support and supplement what was provided through voluntary agencies and fill the gaps in what was seen as missing. Later still the government created a national framework for special education provision, but it was not until the 1970s that this framework included the entitlement of all children to an appropriate education.

As noted above, these early institutions were established in a national context where there was no welfare state and child labour was the norm. Little provision was made for the poor or destitute except through the so-called Poor Laws and accommodation in workhouses where conditions were deliberately made harsh. The Poor Law Amendment Act of 1834 stated that no able-bodied person could receive money or other help from the Poor Law authorities except in a workhouse where conditions were to be made harsh to discourage people from claiming poor relief. Workhouses were to be built in every parish. There was no old age pension until the Pensions Act introduced by the Liberal government brought in a state pension in 1908, and it was not till the years post World War II that the Labour government in 1948 launched the comprehensive system of social security recommended by the Beveridge report of 1942, 'Social Insurance and Allied Services' (Great Britain, & Beveridge, 1942).[1,2]

Early institutions for children identified as 'handicapped', a term commonly in use at the time, were very different from today's schools.

They were designed to focus on training in work skills and, as befit–
ted a Christian foundation, moral improvement and the Christian
religion (Oliphant, 2006), often for adults as well as children. In
Britain, they began firstly with schools for blind and deaf children,
for instance, the School of Instruction for the Indigent Blind, estab–
lished in 1791 in Liverpool.

Schools for the blind

Liverpool School for the Indigent Blind

The Liverpool School for the Indigent Blind has an inter-
esting history. It was the first of its kind in Britain and the
second in the world. It was established by Edward Rushton
supported by the Revd Henry Dannett, vicar of St John's,
Liverpool, who canvassed public support for the establish-
ment. Rushton, as the archives for the school indicate,[3] had
a very personal reason for its foundation. At the age of 11, he
was apprenticed to a firm of West India merchants as a sea-
man. Aged 18 he was on a slave ship where he was accused
of mutiny by the captain for opposing the brutality towards
the slaves that he witnessed. Some of the slaves suffered
from ophthalmia, inflammation of the eyes, which he con-
tracted from them, and it blinded him. His first-hand expe-
riences witnessing the brutal treatment of slaves and also
losing his sight, raised his awareness of the poor treatment
and life chances of many less wealthy blind people when he
returned to his home city of Liverpool. Here he founded the
school to offer training and skills.

Oliphant (2006, p. 55) notes that the Liverpool School
was, according to its founding plan, intended, along with
religion, 'to furnish the blind with employment that may pre-
vent them from being burdens to their family and commu-
nity'. The plan required that 'habits of industry' be formed,
with men making baskets, tablecloths, and whips while the
women spun yarn, made sail-cloths, and picked oakum.
Training in the school 'grew to include spinning, hamper
and basket making, the plaiting of sash-line, the weaving

of worsted rugs for hearths and carriages, [...] the manufacturing of [...] stair carpeting, [...] and the learning of music'.[4]

As recipients of public charity, the inmates had little freedom of choice and discipline was strict. As the Liverpool School Visitors' Books record, those who missed Sunday service or fell asleep in church might be punished through the use of a 'bread and water table'. There were also instances of 'miscreants being locked in the beer cellar for a week for offences such as refusing either to be washed or to wear shoes instead of clogs'. In 1825, two boys were flogged for insolence and another for 'making away with his yarns' (Oliphant, 2006, p. 58).

Other private foundations quickly followed. The School for the Indigent Blind in London, founded in 1800, and the Asylum and School for the Indigent Blind in Norwich in 1805, were solely concerned with instructing inmates in the Christian faith and in earning their living. They relied on adult and child labour to make a profit in their workshops. The inmates were obliged to spend several hours a day praying or listening to readings from the scriptures as they worked. It is questionable whether training in these schools did actually provide lifelong skills for blind people. The Royal Commission on the Blind, Deaf and Dumb and Others spent four years investigating the condition of the blind in Britain and Europe and concluded in its 1889 report, para 64 (United Kingdom. House of Commons, 1889) that:

4065 of the 5848 blind adults interviewed needed charity in some form; more than half earned nothing, while only 58% were able to practise the trades that their institutions had ostensibly prepared them for. Basketwork remained for decades the simplest trade in which to offer instruction and it was not until the end of the century that attempts were made to include innovations that might integrate the blind in the market for emerging occupations.

(Oliphant, 2006, p. 60)

It was not until other schools were founded 30 years later that educational aspects were introduced into the curriculum, for example, in the Yorkshire School for the Blind that was founded in 1833 by the Wilberforce Memorial. This was a charity established after the death of Yorkshire MP and reformer William Wilberforce.

> The school's curriculum included English, history, arithmetic, geography, music, scripture and reading in Roman, Moon and Braille types, as well as handicrafts and various industrial activities aimed at teaching students a useful trade. It was also noted for its music and students participated in weekly public concerts from 1840.[5]

Only a small proportion of blind children went to school. By 1870 'there were only a dozen or so institutions for the blind, most of them in the nature of training centres' (DES, 1978, p. 8). Most blind children's prospects were 'pretty grim' (Cobham, Foreword to Bell, 1967, p. 11) and there were very few attempts to challenge the general attitude to the educability of the blind. One of the most significant, however, was the foundation of the 'College for the Blind Sons of Gentlemen' in 1866 in Worcester. This college was exclusive, however. Its entrance examination included Divinity, Greek, Latin, and Mathematics. Bell (1967, p. 16) notes that its aims, as published in its 1872 report, were 'to bestow a sound and liberal education upon persons of the male sex afflicted with total or partial blindness, and belonging by birth or kinship to upper, the professional or the middle classes of society'. (The equivalent for girls was not established until 1921 by the National Institute for the Blind (NIB) in Chorleywood.) Despite criticisms of its inclusivity, its success in demonstrating what blind learners could achieve should be acknowledged. Academic goals were very high and set towards the professions of the Church, law, and education. Football and cricket, using a ball made of wickerwork with a bell inside, swimming, and athletics were merged with the academic side of the curriculum. Foster, headmaster of the College, felt: 'If prosecuted steadily, systematic physical exercises will greatly diminish … that ungracefulness of bearing which has helped to confirm the impression of the blind man's inferiority' (Bell, 1967, p. 22). Worcester College remained the only route for blind children to achieve higher qualifications and entry into the professions until after the Second World War, however.

Schools for the deaf

The first schools for the deaf were also very limited in the education they offered. The first was founded in Edinburgh in 1760: Mr Braidwood's Academy for the Deaf and Dumb, as it was called at the time.

Mr Braidwood's Academy for the Deaf and Dumb

Mr Braidwood's Academy was first established when a wealthy Edinburgh merchant, Alexander Shirreff, approached Thomas Braidwood (1715–1806) about educating his ten-year-old deaf-mute son with a view to his learning to write. Braidwood seems to have developed a form of total communication, using a 'combined system' for educating deaf students, which included a form of sign language and the study of articulation and lip-reading (Jackson, 1990). This early use of sign language was the forerunner of British Sign Language, which was recognised as a language in its own right in 2003. In 1783, the Braidwoods moved to Hackney in London. Their school took in a small number of paying pupils, children of mostly wealthy parents. A few made remarkable achievements after they had left his academy: the miniature painter Charles Shirreff, the astronomer John Goodricke, and Francis MacKenzie who was born a deaf-mute. The latter was elected as an MP in 1784, then appointed Governor of Barbados in 1800 where he is reported to have tried to improve the conditions of slaves (none of whom had any understandable speech in later life and had to rely on sign language or writing for communication purposes).

Other schools followed the Braidwood Academy. Despite the stated philanthropic aims of these institutions, however, the education that was provided 'was limited and subordinated to training. Many of their inmates failed to find employment on leaving and had recourse to begging' (DES, 1978, p. 9).

Schools for the physically disabled

Attempts were made to teach a trade to girls with physical disabilities from poor homes in the Cripples' Home and Industrial School for Girls established in Marylebone in 1851. This institution was one of the 'Industrial Schools' that were established in the wake of the introduction of the New Poor Law in 1834. In these schools, children were taught skills, for example, spinning and weaving, with revenue from the sale of their goods used towards the cost of their accommodation. Industrial schools had been intended for children whose parents were in the workhouse, or children who were orphaned or abandoned. However, under the Industrial Schools Act (1857) children between seven and 14 years of age who were found guilty of 'vagrancy' could be sent to a certified industrial school until they reached 16. Again, the children were expected to work for their living and produce goods for sale.

Industrial schools continued until 1932. Admissions had declined steeply in the previous 20 years or so, partly as a result of the publicity about the way young people were treated there. A committee had been set up by the Home Office to investigate the future of these schools. Following a recommendation from this committee, many were converted into 'Reformed Schools'.

Cripples' Home and Industrial School for Girls

The Cripples' Home and Industrial School for Girls was founded as 'The Hill Street Refuge for Girls' in 1851 in Marylebone, London, a charitable foundation established by an individual, Mrs Caroline Blunt.[6] Because it catered particularly for girls with physical difficulties, it became known as 'The Cripples' Home' – another term, 'cripple', that these days we would regard as highly offensive. In 1859, it became certified as an 'Industrial School'. Ladies from the home's committee gave the girls lessons in reading and writing. They were also taught to plait straw, make straw hats, and do needlework. The girls carried out a lot of laundry work as

well. By 1874, the school had 69 'cripples' and 29 'industrial cases'. The industrial inmates also looked after the needs of the 'cripples'. The home later moved to north London, and in 1927 was handed over to the Waifs and Strays Society that later became the Church of England Children's Society.[7]

The designation of the Cripples' Home as an Industrial School meant that it could also take girls committed by magistrates. Among its 29 'industrial cases' in 1874, five were under detention. In 1861, an Act was passed that defined four categories of entrants to these schools: beggars under 14, those under 14 found homeless or 'frequenting with thieves', under 14s out of the control of their parents, and under 12s who had committed an offence punishable by imprisonment. From 1880, any[one] under 14 found living with prostitutes could be sent to an industrial school. By 1875, there were 82 industrial schools in England and Wales, and 27 in Scotland.[8]

Similar provision was made for boys in the Training Home for Crippled Boys founded in Kensington in 1865.

Provision for so-called 'mentally defective' children

For those children who experienced serious difficulties in learning, up until the end of the nineteenth century there was little provision apart from workhouses and infirmaries for those who needed secure care. 'Mental disability was for many children no substantial handicap in coping with the simple demands of everyday life in a largely uneducated and relatively uncomplicated world' (DES, 1978, p. 12). The first specific provision made for them was the Asylum for Idiots established at Highgate in 1847, which took people of all ages (Wright, 2001). The medical superintendent of the hospital from 1855 to 1868 was John Langdon Down after whom Down's Syndrome was named. (See discussion of Down's Syndrome in Chapter 6.) Patients were taught manual trades: carpentry, printing, and brush-making, as well as domestic, garden, and farm duties. Later this asylum was renamed the Royal Earlswood Hospital. By 1870, there were five asylums. Only three professed to offer any

kind of education. For children to be admitted to these institutions parents had to agree to them being certified as 'idiots', a label that attracted much odium (Cole, 1989, p. 22).

EDUCATION FOR (ALMOST) ALL

Under the terms of the (1870) Forster Education Act in England and Wales, and the (1872) Education (Scotland) Act school boards were established and charged with ensuring provision of elementary education in locations where there were insufficient places through voluntary enterprise. They did not specifically include disabled children, but a few school boards did admit blind and deaf children to ordinary elementary schools or to centres attached to these schools. These Education Acts established the foundations of elementary education. The 1870 Education Act, Chapter 75, pp. 445–46 reads, for example:

> There shall be provided for every school district a sufficient amount of accommodation in public elementary schools (as herein-after defined) available for all the children resident in such district for whose elementary education efficient and suitable provision is not otherwise made, and where there is an insufficient amount of such accommodation, in this Act referred to as 'public school accommodation', the deficiency shall be supplied in manner provided by this Act.

Under the terms of this Act (p. 471) school boards were empowered, with the approval of the Education Department, to make byelaws that required:

> (1) [...] the parents of children of such age, not less than five years nor more than thirteen years, as may be fixed by the byelaws, to cause such children (unless there is some reasonable excuse) to attend school.

In 1880, a further Education Act finally made school attendance compulsory between the ages of five and ten, although attendance until the age of 13 was compulsory for those who had not achieved the standard of education required by local byelaws. The 1880 Education Act (Chapter 23) reads, for example:

> Every person who takes into his employment a child of the age of ten and under the age of thirteen years, resident in a school district, before

that child has obtained a certificate of having reached the standard of education fixed by a byelaw in force in the district for the total or partial exemption of children of the like age from the obligation to attend school, shall be deemed to take such child into his employment in contravention of the Elementary Education Act, 1876, and shall be liable to a penalty accordingly.

(§4, p. 143)

However, not all areas took it up, and by the early 1890s, attendance within this age group was falling short at 82 per cent. Fees were also payable until a change in the law in 1891. The government became increasingly involved and further legislation in 1893 extended the age of compulsory attendance to 11, and in 1899 to 12.

Following the 1880 Act, a key motivation for supporting enforcement of school attendance particularly in urban areas seems to have been the perception that there were too many unsupervised children on the streets, increasing the risk of delinquency. In some cases, truants who were thought to be at risk of neglect or criminal activity were committed to industrial or truant schools.

The difference between an Industrial School and Truant School is that the former is intended for children whose home surroundings are bad and who are neglected, that if not at once looked after and cared for, are in danger of becoming criminals, the latter is intended for children who stay away from school unknown to and against the will of their parents (who as a rule are at work all day and cannot therefore keep a constant supervision over their children).

(York School Attendance Committee (YSAC) Mins. 21.11.1883 cited in Sheldon, 2007, p. 67)

In rural areas priorities were different. Social concerns about the control of children's behaviour were less apparent and local authorities generally tried to balance the needs of the local agricultural community with the law that required school attendance.

As a result of the introduction of compulsory schooling, large numbers of children attended school for the first time. Many appeared to have poor intellectual ability and made little or no progress. Those children who experienced less serious learning difficulties had largely managed with day-to-day living in a society that was a lot

less complex than ours. However, now that they were compelled to attend school their presence was felt to be holding others back in the large classes that existed in public elementary schools. The question was what to do with them, especially as national level funding for individual schools and, therefore, teachers' salaries, depended in part on the outcomes of examinations of pupils conducted by school inspectors as, for example, in England between 1863 and 1890, when the so-called 'payment by results' policy was abandoned. 'Instruction was based upon the official Code for normal children; classes were large and there was no opportunity, even if teachers had the skills, to shape a special curriculum for them' (DES, 1978, p. 12).

Very little, then, had been accomplished when, in 1889, a Royal Commission distinguished between three groups of children seen as experiencing varying degrees of learning difficulties: 'feeble-minded', 'imbeciles', and 'idiots'. It was decided that feeble-minded should be educated in 'auxiliary' schools away from other children; imbeciles should be sent to institutions where education should concentrate on sensory and physical development and improved speech, and idiots were not thought to be educable. Cole (1989, p. 40) outlines evidence presented to the Sharpe Report (Education Department, 1898) of what might happen to these children: 'In London, before 1892, the feeble-minded over 11 years old had been mixed with 5-year-olds in Standard 1'. However, teachers were 'so concerned with getting their average children through the Standards and so conscious of HMI's [inspectors'] expectations that they would send the feeble-minded to play in a corner with a slate'. These days we would consider the use of these labels for children unacceptable. However, in the nineteenth century there was a big difference in status and respect given to those groups of students who had been identified as 'different' from the rest. In 1896, a Committee on Defective and Epileptic Children appointed to investigate the need for special provision for some pupils recommended that school authorities should make provision for all 'defective' children in their area and also make attendance compulsory. This included children with physical disabilities. The Sharpe Report comments that, by 1897, 27 special schools had been founded in London for 'feeble-minded' children. Even at that time, however, there were parents who felt that there was a stigma attached to their child's placement in a special class and resisted it. One witness to the Sharpe Committee said that parents

'will admit anything except that their children are defective in intel-
lect' (Cole, 1989, p. 40). In any case, special provision is expen-
sive, and the 1899 Elementary Education (Defective and Epileptic
Children) Act merely gave permission for school boards to make
such provision.

The same 1889 Royal Commission mentioned above recom-
mended compulsory education for the blind from age five to 16,
and for the deaf from age seven to 16. Deaf children, generally con-
sidered slower to learn on account of difficulties in communication,
were to be taught separately by teachers who should be specially
qualified to do so.[9] Legislation in Scotland followed in 1890 with the
Education of the Blind and Deaf Mute Children (Scotland) Act, and
in England and Wales in 1893 with the Elementary Education (Blind
and Deaf Children) Act. It was not until 1938, when the (1937)
Education (Deaf Children) Act came into effect, that deaf children
were compelled to attend school from the age of five.

In 1902, the old school boards were abolished and a two-tier
system of local education authorities for elementary and second-
ary education was established. County and county borough coun-
cils were given powers to provide secondary education for blind,
deaf, defective, and epileptic children. The Mental Deficiency Act
of 1913 required local education authorities in England and Wales
to ascertain and certify which children aged seven to 16 in their area
were defective. Those judged by the authority to be incapable of
being taught in special schools were to pass to the care of local men-
tal deficiency committees. Interestingly, Cyril Burt, later Sir Cyril,
was appointed to a part-time position of school psychologist for the
London County Council in 1913, with the responsibility of picking
out the 'feeble-minded' children, in accordance with the 1913 Act.

Mental Deficiency Act (1913)

The new discipline of psychology made formal identifica-
tion and assessment of 'deficiencies' in children seem more
legitimate in the context of the time as is evidenced by the
terms of the Mental Deficiency Act that was passed in 1913.
This Act defined four grades of mental defectiveness, in

each of which the condition had to be present 'from birth or from an early age'. The archive of the National Association for the Feeble-minded (Kirby, 1914) reads as follows in relation to this Act:

> 'It would be well for every public official and social worker to commit the wording of these definitions to memory, in order that the mentally defective may not pass unrecognised, and be, in consequence, committed to unsuitable institutions, submitted to inappropriate treatment, and discharged; his mental abnormality still remaining undiscovered and ignored'.

Definition.
The four classes of mental defectives within the meaning of the Act are described as follows:

1. Idiots; that is to say, persons so deeply defective in mind from birth or from an early age as to be unable to guard themselves against common physical dangers.
2. Imbeciles; that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to idiocy, yet so pronounced that they are incapable of managing themselves or their affairs, or, in the case of children, of being taught to do so.
3. Feeble-minded Persons; that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision, and control for their own protection, or for the protection of others, or, in the case of children, that they by reason of such defectiveness appear to be permanently incapable of receiving proper benefit from the instruction in ordinary schools.
4. Moral Imbeciles; that is to say, persons who from an early age display some permanent mental defect coupled with strong vicious, or criminal propensities, on which punishment has had little or no deterrent effect.

The scheme of provision under the Mental Deficiency Act is based upon the assumption that a defective person is one who remains mentally immature and in need, therefore, of the permanent care and protection which should be the natural right of every child during immature years'.[10]

The 1913 Act required local education authorities in England and Wales to ascertain and certify which children aged seven to 16 in their area were 'defective'. Those judged by the authority to be incapable of being taught in special schools were to pass to the care of local mental deficiency committees.

Only three MPs voted against the Act. Of them, Josiah Wedgwood, is cited in Woodhouse (1982, p. 13) as saying, 'It is a spirit of the Horrible Eugenic Society which is setting out to breed up the working class as though they were cattle'.

In Scotland, the Education of Defective Children (Scotland) Act of 1906 empowered school boards to make provision in special schools or classes for the education of defective children between the ages of five and 16, whilst the Mental Deficiency (Scotland) Act of 1913 required school boards to identify children in their area who were 'defective'. Those children who were considered ineducable became the responsibility of parish councils for placement in an institution.

In 1921, an Education Act consolidated previous legislation, requiring children in the four categories of blind, deaf, mentally and physically defective (but not 'idiots' or 'imbeciles'), and epileptic to be educated. 'Defective' and epileptic children should be certified by local education authorities and then educated in special provision, of which there was a whole range made by both voluntary bodies and LEAs. Blindness and deafness were not defined and there was no provision for the identification and certification of these children. The parents of children in any of the four categories were required to see that their child attended a suitable special school from the age of five in the case of blind or deaf children, or seven for other children, until the age of 16. Local education authorities had the duty to ensure the provision of such schools.

As Warnock (DES, 1978) comments, the statutory foundation of special provision continued broadly until the 1944 Act.

Global influence of framework underpinning Britain's special sector

Early development of special provision in countries colonised by the British was often influenced by the frames of reference that the colonisers brought with them. For example, colonial New Zealand was settled by immigrants, often from Britain. There the rise of what became known as 'Social Darwinism' reflected the same eugenicist preoccupation with fears of national decline, because of what was seen to be a link between mental defectiveness and criminality (Wright & Digby, 1996; Thomson, 1998). Those identified as mental 'defectives' were seen 'as genetically tainted; they should be both separated from society, and prevented from reproducing' (Hall, 2008, p. 1006). The site that was chosen for the Porirua Lunatic Asylum, founded in 1887, a rural area miles from Wellington, reflects a similar obsession with separating the inmates from society as was the case in Britain, so as to prevent reproduction of those seen as unfit thus serving society's commercial interests (Porirua Hospital Museum, n/d).

Surveillance of the 'deviant' required legislation to segregate, classify, and contain them. The 2011 Mental Defectives Act in New Zealand classified six classes:

> 'Class 1 – "Persons of unsound mind" – that is, persons who, owing to disorder of the mind, are incapable of managing themselves or their affairs';
> 'Class II –" Persons mentally infirm" – that is, persons who, through mental infirmity arising from age or the decay of their faculties, are incapable of managing themselves or their affairs;'
> 'Class III-" Idiots " - that is, persons so deficient in mind from birth or from an early age that they are unable to guard themselves against common physical dangers

> and therefore require the oversight, care, or control required to be exercised in the case of young children';
>
> Class IV – 'Imbeciles' – that is, persons who, although capable of guarding themselves against common physical dangers are incapable – or, if of school age, will presumably be incapable when older – of earning their own living by reason of mental deficiency existing from birth or from an early age;
>
> Class V-" Feeble-minded " - – that is, persons who may be capable of earning a living under favourable circumstances, but are incapable from mental deficiency existing from birth or from an early age of competing on equal terms with their normal fellows, or of managing themselves and their affairs with ordinary prudence';
>
> Class VI "Epileptics" - – that is, persons suffering from epilepsy'.
>
> The similarity in thinking behind the 2013 Act in the UK, and the 2011 Act in New Zealand is obvious.

LINKS BETWEEN SPECIAL PROVISION AND THE SOCIAL, POLITICAL, AND IDEOLOGICAL CONTEXT OF SOCIETY

To understand the current form and organisation of special educational provision we have to be aware of the social, political, and ideological context from which that provision derives (Wearmouth, 2009). The rise and demise of a particular form of special provision that no longer exists serves to illustrate this point: open-air schools for 'delicate' children.

The rise and demise of open-air schools for delicate children

The foundation of open-air schools in Britain at the beginning of the 20th century has to be seen against a context of concern that had arisen around the physical well-being of

large numbers of children, particularly in the cities where the air was often heavily polluted and living conditions for most people were wretched. As Cole (1989) notes, recruitment of soldiers to fight in the Boer War had highlighted the large proportion who were medically unfit to fight. As a result of this concern, the government passed the Education (Provision of School Meals) Act in 1906 to enable local education authorities (LEAs) to provide school lunches and, in 1907, the Education (Administrative Provisions) Act to require LEAs to carry out medical checks on all their pupils. Gamlin (1935) notes how open-air schools were modelled on a German example. In the Berlin Education Authority, a school doctor examining children observed that many of them were anaemic and debilitated. He strongly recommended open-air treatment, suitable surroundings, careful supervision, good feeding, and exercise and, as a result, the first open-air school was established in 1904 in pine woods in Charlottenburg. The first British open-air school was Bostall Woods, founded in Woolwich, in 1907. This was soon followed by others in which 'pupils with weak hearts, bronchial complaints or suffering from malnutrition were subjected to a somewhat Spartan regime'. Lessons were 'spent out of doors or in three-sided rooms, with meals provided and a compulsory rest period in the middle of the day' (Cole, 1989, p. 51).

Classrooms in Aspen House open-air school in Streatham, London, had floors and roofs but no walls and were completely open to the elements. When it rained, children on the end of the rows might get wet. In winter, if it had snowed, the children might have to clear snow off the tables and chairs before they could start the lesson. There was no heating but, however cold it became, lessons continued and pupils just had their clothes and blankets with which to keep warm. A medical official in Leicester noted that, among the characteristics of children admitted to these schools were 'Stunted growth, loss of muscular tone and dryness of hair [and] rings around the eyes, long silky eyelashes, inflammation of the eyelids, enlarged glands, anaemia,

feeble circulation and shallow breathing' (Cathcart, 2005). Thousands of children in Britain matched this description, particularly in city slum areas. This, combined with the cheapness of schools that were effectively three-sided sheds with corrugated iron roofs, led to an expansion of their numbers. By the 1930s, there were 4,000 children a year from London who were sent to open-air boarding schools. They might be funded by LEAs, charities, or private philanthropists, for example, the Cadbury family in Birmingham.

The *Independent* newspaper (23 January 2005) carried interviews with some of the ex-pupils of such schools. George Cooke, 84, recalled the cold of a 1930s winter at Brent Knoll School, south London. As a ten-year-old he wore shorts like all other boys at the time and was given a blanket to keep warm. Others remembered more positive aspects of open-air schools. Norman Collier, aged 82, considered he and other children benefited academically. He, for example, became a company director later on in life. Frances Wilmot, an asthmatic who was a pupil at Uffculme in the 1950s, remembered small classes and caring teachers, a great contrast with some of the children's own homes.

Doubts about the value of open-air schools had crept in as early as 1930, when a report from the Industrial Research Board questioned the value of being out of doors in all weathers. These doubts were increased when medical officers surveying open-air schools for the Ministry of Education in 1949 to 1950 commented: 'When the canvas curtains were drawn, rain drove in and above the curtains so that the floor and furniture were often wet. We saw children scraping frozen snow off the desks and chairs before they could be used' (Cole, 1989, p. 113). Even so, in 1955, 12,000 'delicate' children were still being educated in open-air schools in England and Wales. However, medical opinion was moving away from favouring Spartan conditions for 'delicate' children. In addition, improved standards of living, slum clearances, the advent of the National Health Service, the

arrival of antibiotics, notably streptomycin which reduced the incidence of tuberculosis, and the provision of milk and meals in schools meant that the open-air movement gradually became redundant.

DEVELOPMENTS IN DIFFERENTIATED CURRICULA FOR DIFFERENT LEARNERS

In 1918, the Fisher Education Act raised the school leaving age to 14, and handed responsibility for secondary schools to the state. Many young people during this period attended all-through primary schools until the age of 14, rather than transferring to a separate secondary school. However, in 1938, a report by Sir William Spens (Board and of Education, 1938) recommended a structure for secondary education that involved the creation of three types of school, the so-called 'tripartite' system: grammar schools for the academically able; technical schools for those with a practical bent; and new 'modern' secondary schools for the rest.

CATEGORISATION IN MAINSTREAM SECONDARY EDUCATION

Towards the end of the Second World War, a coalition government reorganised the education system through the 1944 Education Act in England and Wales and sought to develop a common national framework for the education of a diverse student population. The statutory system of education was to be organised 'in three progressive stages to be known as primary education, secondary education, and further education' (1944 Education Act, Part 11, §7). Local authorities were required to provide primary and secondary schools

sufficient in number, character, and equipment to afford for all pupils opportunities for education offering such variety of instruction and training as may be desirable in view of their different ages, abilities, and aptitudes.

(Part 11, §8(1))

The government followed the Spens Report in advising LEAs to 'think in terms of three types' of state secondary schools in circular No. 73 (12 December 1945). A booklet, *The Nation's Schools*, explained that the new 'modern' schools would be for working-class children 'whose future employment will not demand any measure of technical skill or knowledge' (MoE, 1945, quoted in Benn & Chitty, 1996, p. 5). Although this booklet was withdrawn, the policy remained the same and was restated in *The New Secondary Education* two years later (Wilkinson, 1947).

The Act itself never mentioned the words 'tripartite', 'grammar schools', or 'secondary modern schools'. It simply required that education should be provided at three levels: primary, secondary, and further. Indeed, the Parliamentary Secretary to the Board of Education, J Chuter Ede, commented in a speech reported in *The Times* of 14 April 1944:

> I do not know where people get the idea about three types of school, because I have gone through the Bill with a small toothcomb, and I can find only one school for senior pupils – and that is a secondary school. What you like to make of it will depend on the way you serve the precise needs of the individual area in the country.
>
> (cited in Chitty & Dunford, 1999, p. 20)

Nevertheless, it was quickly adopted by many local education authorities. Those who put the 1944 Act into effect formalised a system of selection based on the results of assessment techniques that, they believed, could differentiate different 'types' of learners. They thought it possible to design different curricula for different learning 'types' who could be educated in separate sectors of the system. In mainstream, students took an examination at the age of 11 and were selected into the different kinds of secondary school: grammar, technical, and secondary modern. Within individual mainstream schools, students were selected into ability 'streams', academic or work-related programmes according to measured 'ability'. It seemed to many that the educational hierarchy that developed was fair. Students appeared to be able to rise to a level that reflected their ability. Furthermore, it was based on psychometric testing which at that time was thought by many educators to be reliable and valid.

CATEGORISATION IN SPECIAL EDUCATION

In the area of special education, the 1944 Education Act, sections 33 and 34, set out the legal basis for subsequent provision. The duty of LEAs to ascertain which children required special educational treatment, hitherto confined to defective and epileptic children, was extended to children with all types of disability, generally described in the Act as 'pupils who suffer from any disability of mind or body'. These days we might call this way of viewing difficulties in learning as the 'medical' or 'deficit model' where such difficulties could be 'treated' as if they are a disease. Certification of defective children within the education system was abolished. Any child considered educable would have access to schooling. Children seen as ineducable in school were to be reported to the local authority for the purposes of the Mental Deficiency Act 1913. Local authorities were empowered to require parents to submit their children for medical examination. In Scotland, the Education (Scotland) Act (1945) repeated much of the content of the Education Act 1944.

The Handicapped Students and School Health Service Regulations (1945) in England and Wales developed a new framework of 11 categories of students: blind, partially sighted, deaf, partially deaf, delicate, diabetic, educationally sub-normal, epileptic, maladjusted, physically handicapped, and those with speech defects. Maladjustment and speech defects were included for the first time. The College of Speech Therapists was founded in 1945. Between 1949 and 1954, the number of speech therapists employed by local education authorities increased from 205 to 341 and the number of children treated annually rose from 25,098 to 44,800. The regulations required blind, deaf, epileptic, physically handicapped, and aphasic children to be educated in special schools. Children with other disabilities could attend mainstream if there was adequate provision (DES, 1978, para 2.46).

Official guidance in 1946 estimated that the number of children who might be expected to require special educational treatment, not necessarily in special schools, would range from between 14 and 17 per cent of the school population. Between 1945 and 1955, 68 per cent of those learners in special schools were identified as 'educationally subnormal' (ESN), 14 per cent as 'physically handicapped', and 7 per cent as 'maladjusted'. The two groups which continually

expanded in numbers at this time were the 'educationally sub-normal' and the 'maladjusted' (DES, 1978).

> The category of educationally sub-normal children was seen as consisting of children of limited ability and children retarded by 'other conditions' such as irregular attendance, ill-health, lack of continuity in their education or unsatisfactory school conditions. These children would be those who for any reason were retarded by more than 20 per cent for their age and who were not so low-graded as to be ineducable or to be detrimental to the education of other children. They would amount to approximately 10 per cent of the school population.
>
> (DES, 1978, para 2.48)

As Warnock (DES, 1978) comments, post-war planners assumed that ordinary schools would have the major share in making provision for those young people with difficulties in learning and/or behaviour:

> Detailed suggestions were made for provision. In large urban areas about 1–2 per cent of the school population would need to be educated in special schools (including 0.2 per cent in boarding schools); the remaining 8–9 per cent of the school population would be provided for in ordinary schools.
>
> (DES, 1978, para 2.48)

However, during the war, most of the accommodation in schools had been destroyed, many schools that survived were in a bad state, and raising the school leaving age meant that additional building was needed. Secondary modern schools in particular often had large classes and suitably trained teachers were in short supply (DES, 1978, pp. 33–40). The outcome for special educational provision was that the planners' intentions were not wholly fulfilled, and special education came to be interpreted much more narrowly than official guidance anticipated. Provision in ordinary schools failed to develop as expected.

The number of children in ESN special schools nearly doubled between 1947 and 1955 from 12,060 to 22,639. Even so, the number of children awaiting placement was over 12,000. Politicians increasingly looked to medicine and the growing profession of psychology for solutions to behaviour in schools that was construed as

deviant (Ford et al., 1982). Warnock (DES, 1978) notes that education authorities in Scotland were empowered in 1945 to provide a child guidance service that would advise teachers and parents on appropriate methods of education and training for these children. By 1966, 25 of the 35 education authorities had a child guidance service. In England, the number of child guidance clinics increased from 162 in 1950 to 367 some 20 years later. To keep pace with this kind of expansion in numbers, the Summerfield Working Party (Summerfield & DES, 1968) recommended new and expanded arrangements for training of educational psychologists and a doubling of numbers. In 1978, an HMI survey of behavioural units found that 239 special units for disruptive children had been established in 69 of the 96 LEAs in England.

Examination of the rise and demise of the category 'maladjusted' is an interesting example of the way in which the use of labels attaching problems to children can pervade the education system to suit the existing national context.

The case of 'maladjustment'

Until 1945, there was no formal category of 'maladjustment' enshrined in Ministry of Education regulations. It had its origins in the creation of a group of children identified as moral imbeciles or defectives under the terms of the 1913 Act. Children who displayed emotionally disturbed or disruptive behaviour came to be associated with both mental defect and moral defect (Galloway et al., 1994, p. 110). Board of Education Reports in the 1920s, for example, identified 'unstable', 'nervous', 'difficult and maladjusted' children as in need of child guidance (Galloway et al., 1994, p. 112).

After 1945, all LEAs had a responsibility to establish special educational treatment in special or ordinary schools for students defined as 'maladjusted'. The concept was still relatively new when the Underwood Committee was set up in 1950 to enquire into 'maladjusted' students' medical, educational, and social problems. The (1955) Underwood Report (Chapter IV, para 96) lists six symptoms of 'maladjustment'

requiring professional help from psychologists, child guidance clinics or doctors: 'nervous disorders', e.g. fears, depression, apathy, excitability; 'habit disorders', e.g. speech defects, sleepwalking, twitching, and incontinence; 'behaviour disorders', e.g. defiance, aggression, jealousy, and stealing; 'organic disorders', e.g. cerebral tumours; 'psychotic behaviour', e.g. delusions, bizarre behaviour; and 'educational and vocational difficulties', e.g. inability to concentrate or keep jobs.

An overall definition proved difficult. There has never been a consensus on what defines 'problem behaviour', of the sort categorised by the term 'maladjusted'. As Galloway and Goodwin (1987, p. 32) noted: 'the common point to emerge from attempts to clarify behavioural disorders and types of maladjustment is that it is a ragbag term describing any kind of behaviour that teachers and parents find disturbing'.

'Maladjustment' was often used pragmatically to justify special educational provision for those students for whom segregation from peers has been seen as necessary. Invent the category, create the student. Between 1945 and 1960, the numbers of students classified as maladjusted rose from zero to 1,742. 'Psychiatrists have sometimes been prone to see pathology in all kinds of variations of personality and styles of life' (Rutter et al., 1970, p. 178).

In 1970, Rutter et al. attempted to assess the prevalence of specific categories of difficulties in the school student population. Estimates of maladjustment in the child population varied across the country from 5 to 25 per cent (Brandon, 1961). Furlong (1985) notes that, by 1975, there were 13,000 students labelled as 'maladjusted'. Ravenette's (1984, p. 4) identification of three situations where the word 'maladjustment' was commonly used shows clearly how the maladjusted descriptor was used to explain Jack's behaviour:

- there is a breakdown in the relationship between a child and others which is chronic rather than transitory;

- the adults in the situation are worried by the behaviour which points to a breakdown and by their inability to do anything about it;
- it is then a signal to others that the situation is intolerable, that the institution is entitled to some special help or relief and that perhaps the child should be placed in a more appropriate institution, or be rendered 'normal' by treatment.

(Adapted from Wearmouth, 2009, p. 21)

The Education (Handicapped Children) Act 1970 removed the power of health authorities to provide training for children who experienced the most serious difficulties in learning (deemed 'mentally handicapped') and required the staff and buildings of junior training centres to be transferred to the education service. Around 32,000 children in institutions of various sorts together with an unknown number at home now became entitled to special education. In future they were to be regarded as 'severely educationally sub-normal' (ESN(S)), as opposed to the moderately educationally sub-normal (ESN(M)) group who had previously made up the ESN category. In Scotland, the 1974 Act also gave education authorities responsibility for the education of children who previously had been viewed as 'ineducable and untrainable'.

EDUCATION FOR ALL

The system established after 1944 and intended to make appropriate provision for the whole pupil population of the nation seemed stable. However, as Clark et al. (1997) note, many commentators in education began to see that the system of selection into grammar, technical, and secondary modern schools was not as fair as was first thought. For example, differing proportions of students were selected for each type of school in different areas of the country. Considerable doubt was increasingly thrown on the reliability and validity of the psychometric tests that were used to discriminate between children, and there was obvious overlap between the learning needs of students in mainstream and special schools (Wearmouth, 1986). In addition,

movement between school types was very difficult indeed, regardless of the amount of progress made by individual students. Further, a growing concern for equality of opportunity in society at large led some researchers in education to comment that the system was divisive and functioned to sustain the position of some already advantaged societal groups. For example, Douglas (1964) and Hargreaves (1967) found a disproportionate number of middle-class children in grammar schools.

The result of all this, together with a move globally towards equality and human rights in the second half of the 20th century was, beginning in the 1960s and increasingly in the 1970s, the establishment of comprehensive schools, the introduction of special classes and 'remedial' provision in mainstream, and the integration of some children from special to mainstream schools.

INTRODUCTION OF THE CONCEPT OF SPECIAL EDUCATIONAL NEEDS

In November 1973, Margaret Thatcher, then education secretary in the Conservative government, announced that she proposed, in conjunction with the secretaries of state for Scotland and Wales, to appoint a committee of enquiry into education in the special sector chaired by Mary Warnock. At the beginning of this chapter we commented that one of the debates that has echoed down the years relates to the purpose of education. It is noteworthy here that the wording of the aim of the Warnock enquiry very clearly reflects an emphasis on the aim of education as preparation for employment, driven, at least in part, 'by a country's socio-economic goals' (Shuayb & O'Donnell, 2008, para 2).

> To review educational provision in England, Scotland and Wales for children and young people handicapped by disabilities of body or mind, taking account of the medical aspects of their needs, together with arrangements **to prepare them for entry into employment**[11]; to consider the most effective use of resources for these purposes; and to make recommendations.
>
> (DES, 1978, p. 1)

The very influential 1978 Warnock report of the committee of enquiry into special educational provision in Great Britain introduced

a new concept of 'special educational needs' to replace the previous categorisation of 'handicapped by disabilities of body or mind' (DES, 1978, p. 36). The authors of the report were very concerned to note (p. 37) that there is no simple relationship between a disability or difficulty and the extent to which it influences educational achievement. [Just] as important is the context in which the learner lives and learns.

> Schools differ, often widely, in outlook, expertise, resources, accommodation, organisation and physical and social surroundings, all of which help to determine the degree to which the individual is educationally handicapped [*sic*]. [...] Moreover, to describe someone as handicapped conveys nothing of the kind of educational help, and, hence, of provision that is required.
>
> (DES, 1978, p. 37)

They go on to add (p. 37):

> [...] we have adopted the concept of SPECIAL EDUCATIONAL NEED, seen not in terms of a particular disability which a child may be judged to have, but in relation to everything about him, his abilities as well as his disabilities – indeed all the factors which have a bearing on his educational progress.[12]

In other words, in this report, the need that is 'special' relates to what is required to enable access to the curriculum, rather than an attribute of the learner, and is therefore context-dependent.

In the years before Warnock, an investigation of the incidence of difficulties in learning in the school population (Rutter et al., 1970) had reported teachers' perceptions that, on average, 20 per cent of their students experienced difficulty of some kind during their years of compulsory education. It is noteworthy that, since Warnock, the figure of 20 per cent has been used to estimate the number of children nationally who might experience difficulties at some point in their educational career. Of the total number of students, an arbitrary figure of two per cent, drawn from a count of students in special schools in 1944 (DES, 1978), were seen by policymakers as likely to have difficulties which require additional or extra resources to be provided. Legally, there are no official figures for the incidence of

children likely to need statutory assessment. However, it is clearly useful to resource providers, for example, local authorities, to estimate what proportion of their resources they are likely to have to set aside for individual students' educational needs.

SUMMARY

Over time young people whose learning and/or behaviour, and/or physical attributes and/or social and emotional states have been identified as significantly different from peers and as hindering their and, at times, their peers' progress in education, have been categorised in various ways and excluded or included in mainstream educational institutions. For many years, there was debate about whether some young people are capable of being educated in any form that is recognisable as 'education' at all.

As we will see below in Chapter 3, the most recent law in England, the Children and Families Act, 2014, assumes that four areas of need in education can be identified: communication and interaction; cognition and learning; social, emotional and mental health; and sensory and/or physical needs. How learners in the various groups should be and/or were or are valued, and the value that can be deduced from the kind of provision that is deemed to be appropriate at any one point in time, has a particular relevance to our understanding of 'special educational' or 'additional support' needs and disability, together with policy and practice in general terms.

NOTES

1 Sir William Beveridge himself was concerned that there should be a socially acceptable minimum standard of living in the UK below which nobody should fall. The Beveridge Report aimed to provide a system of social insurance that covered people from birth to death. It proposed that all working people should pay a weekly contribution to the state so that the unemployed, sick, retired, and the widowed should receive benefits.

2 Even at the beginning of the 20th century, as Thompson et al., p. 41, note,

in 1906, 2% of people in England and Wales were receiving help via the Poor Laws – 2% of children, 1% of adults aged 16–60, and 15% of older people […] The assistance provided under the Poor Laws varied from area to area. As the

1909 Royal Commission on the Poor Laws reported: 'In one part of the country a widow with one child would get no relief whatever unless she came into the workhouse; in another part of the country she would, indeed, get out-relief, but nothing for herself and only 6d and two loaves per week for her child; in a third district she would get as much as 5s for herself and 4s for her child; and in a fourth district, she would get relief only if she consented to part with her child and send it to a Poor Law school.

3 http://historyof.place/location/liverpool-school-for-the-indigent-blind/ – accessed 21.11.21.

4 http://www.childrenshomes.org.uk/LiverpoolBlindSchool/ – accessed 21.11.21.

5 https://borthcat.york.ac.uk/index.php/yorkshire-school-for-the-blind – accessed 21.11.21.

6 www.childrenshomes.org.uk/MaryleboneRefuge/ – accessed 06.01.22.

7 www.childrenshomes.org.uk/MaryleboneRefuge/.

8 www.childrenshomes.org.uk/IS/ – accessed 25.03.18.

9 It is interesting to note that teachers in special schools for children with visual and auditory impairments still require specialist qualifications but those in some other kinds of special educational institutions do not.

10 www.archive.org/stream/legislationforfe00kirbrich/legislationforfe00kirbrich_djvu.txt – accessed 31.07.22.

11 Current author's emphasis.

12 The use of capital letters in this quotation as well as that of the masculine pronoun 'him' reflects formatting and wording of the original text.

3

LEARNING AND BEHAVIOUR NEEDS, DISABILITIES, AND THE LAW ACROSS THE UK

INTRODUCTION

In the UK, a number of what we might see as overlapping sets of legislation are particularly relevant to a consideration of learners' entitlements to curricular provision that is relevant to, and takes account of, their individual learning needs. First, there is human rights legislation that sets out the fundamental rights to which learners in the education system are entitled. Then there is law that renders disability a protected characteristic for which educational and other institutions are required to be proactive in making 'reasonable adjustments', and against which it is illegal to discriminate. Here, the same legislation that applies to education as well as to other aspects of public life, most recently the Equality Act 2010, operates across all the countries of the UK. It does not, however, apply to Northern Ireland where 'disability discrimination law[1] does not apply to the provision of education in schools, colleges and universities. Instead, disability discrimination about those matters is banned by a different law which covers special educational needs and disability' (https://www.nidirect.gov.uk/articles/protection-against-disability-discrimination – accessed 04.12.21): the Special Educational Needs and Disability (Northern Ireland) Order (2005).

In this chapter we begin by discussing human rights legislation and the Equality Act (2010), and continue with an overview of special educational, additional learning or support needs, legislation and the associated Codes of Practice across the UK. Until recently, there have been strong similarities in England, Wales, and Northern Ireland in terms of the definition of what constitutes a special learning or behavioural need. However, we discuss how revisions to legislation by the National Assembly for Wales and by the Department for Education in Northern Ireland, and the legislation that was introduced in England in 2014, may increase the differences between them.[2] Education law in Scotland is regulated by the Scottish Government in Edinburgh and continues to be different.

HUMAN RIGHTS LEGISLATION

In the UK, the Human Rights Act (1998) incorporates into domestic British law the rights set out in the European Convention on Human Rights (ECHR). Learners' rights to an effective education are protected through Protocol 1, Article 2 (CoE, 1966) that states, 'No person shall be denied a right to an education'. (https://www. equalityhumanrights.com/en/human-rights-act/article-2-first-protocol-right-education – accessed 27.10.21). An important consideration here, when we reflect on access issues for learners who experience difficulties, is that the right to education relates to the education system that already exists, as the courts have ruled. That said, there is also a principle of equity which requires that the special or additional support which some learners need should be made available for them to access the same broad balanced curriculum as their peers. We cannot claim there is equal opportunity unless settings, schools, and colleges make what exists accessible to all.

EQUALITY ACT (2010)

Since 2000, a number of pieces of legislation relating to disability equality have been passed across the UK, most recently in the Equality Act 2010. This Act passed into law on 6 April 2010. Its terms are statutory in England, Wales, and Scotland. Organisations such as schools and colleges are now expected to be proactive in anticipating and responding to the needs of their disabled students.

The preamble to the Equality Act 2010, Chapter 15, establishes the purpose of the legislation. In summary, this is that persons with 'certain personal characteristics' defined as 'protected characteristics' are protected from discrimination. Of particular interest to those working in schools and colleges is that, listed among these is 'disability'. This is defined in the Act (c. 15, p. 4) as follows:

> Disability
>   A person (P) has a disability if—
>
> - P has a physical or mental impairment, and the impairment has a substantial and long-term adverse effect on P's ability to carry out normal day-to-day activities.
>
> (www.gov.uk/government/uploads/system/uploads/attachment_data/ file/315587/Equality_Act_Advice_Final.pdf – accessed 29.11.21)

'Substantial' is defined as meaning more than minor or trivial and 'long-term' means lasting more than one year or likely to last more than one year. Not all children or young people with special educational, or additional learning or support needs will be disabled and not all disabled children or young people will have special educational needs. The vast majority, however, will fall under both legal definitions.

Under the Act, discrimination is when an education provider or employer treats a person unfairly placing him/her at a disadvantage when compared with non-disabled people. This could be someone purposefully discriminating, or because an education provider, examination board, or employer works in a way that unintentionally puts the person at a disadvantage. Protection from discrimination applies in many situations such as education, employment, exercise of public functions, goods, services, facilities, and transport.

As well as supporting the rights of disabled students by giving greater legal protection against discrimination, the Act emphasises the legal duty on education providers, employers, and service providers to make 'reasonable adjustments'.

IMPLICATIONS OF 2010 EQUALITY ACT IN EDUCATIONAL CONTEXTS

Early-years settings, schools, colleges, and local authorities have clear legal duties to act to prevent unlawful discrimination, whether

directly or indirectly. For example, paragraph 85 of the Equality Act 2010 states that there must be no discrimination by a school, for example,

   a. in the way it provides education for the pupil;
   b. in the way it affords the pupil access to a benefit, facility, or service;
   c. by not providing education for the pupil;
   d. by not affording the pupil access to a benefit, facility, or service.

Educational institutions must therefore ensure that they do not treat children and young people with disabilities less favourably than others. Stronger rights to a place in a mainstream school have made it unlawful for schools and LAs to discriminate against disabled students, particularly in relation to admission arrangements and the educational provision in school. Paragraph 85 of the 2010 Equality Act, for example, also states that there must be no discrimination by a school against a young person:

   a. in the arrangements it makes for deciding who is offered admission as a pupil;
   b. as to the terms on which it offers to admit the person as a pupil;
   c. by not admitting the person as a pupil.

A learner who has special educational needs and a Statement of Special Educational Needs or an Education, Health and Care Plan must now be educated in mainstream school subject to two conditions: the wishes of the child's parents and the provision of efficient education of other children.

   Under the 2010 Act, early-years settings, schools, colleges, local authorities (LAs), employers, and examining and awarding bodies have the duty to make reasonable adjustments as noted already – to change what they do or were proposing to do – to ensure a child or young person is not disadvantaged. This duty is anticipatory and continuing. Institutions should plan for the requirements of disabled students and possible essential adjustments. In other words they are required to put the equity principle into practice, so that disabled people can take part in education, use services, and work.

There are three elements to the reasonable adjustments duty. Adjustments can:

- be changes to policies and procedures;
- be changes to buildings to make them physically accessible; and
- mean provision of equipment and human support.

The aim is to prevent disabled people being disadvantaged compared to non-disabled people. Adjustments can include:

- putting in place arrangements for time off and keeping up-to-date, for example, with course work for a student whose medical condition leads to frequent hospital admissions; and
- in educational institutions, providing support workers such as readers for students with visual impairments or note-takers for students whose impairment makes it difficult for them to take notes in classes and lectures.

An example of one such disability might be acute dyslexia. It may well be viewed that a 'reasonable adjustment' for severely dyslexic students might be ensuring that they should have access to specialist software on a school's college's computers. Failure to make 'reasonable adjustments' for a disabled person and, thus, treating that person unfavourably in relation to peers, constitutes discrimination. Such treatment cannot be justified. The issue is whether adjustment is 'reasonable'. The duty to make 'reasonable adjustments' requires positive steps to ensure disabled students can fully participate in the education and other benefits, facilities, and services provided for peers. This is an objective question ultimately for the courts to determine.

Under the section of the law on disability discrimination, the Act protects disabled people but not those who are not disabled. The consequence is that schools, for example, are allowed to treat disabled students more favourably than non-disabled students and, in some cases, are required to do so, by making 'reasonable adjustments', to put them on a more level footing with students without disabilities. A general guidance document related to interpreting the (2010) Equality Act is available at www.gov.uk/government/

publications/equality-act-guidance. The Department for Education has issued special guidance for schools on how to comply with equality legislation, *The Equality Act 2010 and schools* (DfE, 2014d). It can be found at www.gov.uk/government/uploads/system/uploads/attachment_data/file/315587/Equality_Act_Advice_Final.pdf (accessed 29.11.21).

An example of an anticipatory adjustment might be where a university recognises that making an adjustment to provide handouts in advance in electronic format is a common anticipatory need for students who have dyslexia. In this case, the university might agree timescales to ensure all staff have teaching notes available in this way. The actual content of courses is **not** subject to discrimination provisions, but courses must be taught in a way that will not subject students to discrimination.

As implied above, severe dyslexia might in law constitute a disability if the effect of it on the individual learner's ability to perform normal day-to-day activities is:

- substantial (that is more than a minor or trivial); AND
- adverse; AND
- long term (has lasted or is likely to last at least a year, or for the rest of the life of the person affected).

In some cases, people have coping or avoidance strategies which cease to work in certain circumstances (for example, where someone who has dyslexia is placed under stress). The possibility that a person's ability to manage the effects of an impairment may break down and that these effects may still occur, must be taken into account when assessing the effects of the impairment.

(Office for Disability Issues, 2011, §B10, www.gov.uk/government/publications/equality-act-guidance – accessed 29.11.21)

Similar points may be made about children and young people with additional support needs in Scotland. However, given the broad definition of the term 'additional support needs', there will be many children with additional support needs who are not disabled.[3]

In Scotland, the Education (Disability Strategies and Pupils' Educational Records) (Scotland) Act 2002 requires education

authorities and the proprietors and managers of independent and grant–aided schools, respectively, to prepare accessibility strategies that

- increase disabled pupils' participation in the curriculum;
- improve the physical environment of the school, or schools, to enable better access to education and associated services provided; and
- improve communication with disabled pupils. In particular, relating to the provision of information in appropriate alternative formats and taking account of any preferences expressed by them or their parents that would be provided in writing to pupils who do not have a disability.

Detailed guidance on preparing accessibility strategies is provided in the Scottish Government publication 'Planning Improvements for Disabled Pupils' Access to Education', as above.

The 2010 Equality Act gives parents (and/or young people of a responsible age in Scotland) the right of appeal to a tribunal if they feel their child has suffered discrimination. The tribunal in England is the First-tier Tribunal, in Wales, the Special Educational Needs Tribunal for Wales, and in Scotland, the Additional Support Needs Tribunal for Scotland.

ACCESS ARRANGEMENTS AND REASONABLE ADJUSTMENTS FOR EXTERNAL EXAMINATIONS

External examinations and awarding bodies have specific responsibilities not to discriminate against students with protected characteristics and have a duty to make reasonable adjustments for candidates taking examinations. Institutions must make reasonable adjustments to assessment methods, but not to the application of particular competence standards that determine whether or not the students have a particular level of competence or ability. In other words, such adjustments should not compromise the qualification itself. Reasonable adjustments may be required to the process by which competence is assessed, for example, readers, interpreters, amanuenses, rest breaks, extra time, alternative assessment methods, and so on.

We discuss the issue of access arrangements in more detail in Chapter 10.

LEGAL INTERPRETATIONS OF THE CONCEPT OF 'NEEDS'

The 1981 Education Act in England and Wales, and the Education and Libraries (NI) Order (1986) in Northern Ireland, were based to a large extent on the 1978 Warnock Report's recommendations to replace the 11 categories of handicap with a new umbrella category of 'special educational needs' and an understanding that students' difficulties occur on a continuum. Local education authorities[4] were given responsibilities to identify needs that required provision in addition to what was normally available in schools. Parents should be consulted about provision for their child and could appeal against a local authority's decisions. All children should be educated in mainstream schools but with certain provisos:

- their needs should be met there; and
- it was compatible with the education of other children and with the 'efficient use of resources'.

'Special educational needs' in England and Northern Ireland

In England and Northern Ireland, the definition of 'special educational needs' has remained largely constant since Warnock. Under the terms of the relevant legislation, a child[5] has special educational needs if he or she has a learning difficulty[6] which calls for special educational provision to be made for him or her (Education Order (Northern Ireland) 1996, Part 11, §3(1); (Children and Families Act, 2014, Part 3, §20(1)). That is, a young person only has 'special educational needs' when special provision is required to meet them: learning difficulties do not in themselves constitute such a need.

To understand the definition of special educational needs (SEN), we first need to know what is meant by 'learning difficulty'. Similar definitions apply in England and Northern Ireland. A child or young person may be seen as having such a difficulty if s/he experiences significantly greater difficulty in learning than the majority of same-age peers, or

- s/he has a disability which prevents him (or her) from making use of (educational) facilities 'of a kind generally provided for' same-age peers in mainstream *educational* institutions.

(Education Order (Northern Ireland) 1996, Part 11, §3(1); Children and Families Act 2014, Part 3, §20(2))

In education law, a learning difficulty creates a need that is 'special' 'only if the provision required to address it is "special"'. A specific literacy difficulty that makes it hard for a student to engage in the same learning activities as others could mean that s/he has a 'learning difficulty', for example. This much is fairly obvious. However, a student might also have a 'learning difficulty' if s/he has a physical disability that creates a barrier to moving around the school or classroom to participate in those activities with peers.

This way of defining a learning difficulty raises major questions, for example:

- how to measure 'significantly greater difficulty in learning' so that there is a clear justification for providing the extra 'step' required by the principle of equity;
- how to compare one student to the majority. If we compare individuals against a mean average of the rest of the child population of the same age, there is bound to be a grey area around the cut-off point for allocation of extra, additional, or special resources, leaving some children with and others without support that might be needed;
- how to gauge the degree to which the context, pedagogy, or curriculum provision is exacerbating difficulties experienced by a learner; and
- what is meant by a general level of provision. For example, some schools have space for particular activities such as drama or sport, others do not.

Whether students are identified as needing additional support varies across the country. Inevitably, however needs are identified, the professional, resource, and policy judgements involved in the decision-making process will always leave room for inequality. In England, for example, it is not unusual for schools to identify children with learning difficulties or disabilities in relation to expected progress in the national curriculum. The danger here is that this allows assessment designed for a different purpose to validate decisions which affect provision and children's learning.

The second part of the definition refers to a 'disability' as causing learning difficulties. By law, then, a person with a visual impairment has a learning difficulty if the individual cannot access the same

facilities as peers. The implication is that, if LAs, settings, schools, and colleges generally provide appropriate learning resources to access the same curriculum as peers, then no student would be prevented 'from making use of educational facilities generally provided' (Education Act 1996, S. 312; DENI, 1998, para. 1.4; Children and Families Act 2014, Part 3, §20(2)(b)), and therefore no child would have special educational needs.

'Additional learning needs' in Wales

In Wales a new system has been introduced through the Additional Learning Needs and Education Tribunal (Wales) Act 2018 ('the Act'), and regulations made under the Act. The expression 'additional learning needs (ALN)' replaces the terms 'special educational needs (SEN)' and 'learning difficulties and/or disabilities (LDD)'. The definition of ALN is similar to the legal definition of SEN in England. A child or young person is considered to have ALN if s/he (a) has a learning difficulty or disability, and (b) that learning difficulty or disability calls for additional learning provision to be made.

Under section 2(2) of the Act, a child or young person[7] has a learning difficulty or disability if he/she:

- has a significantly greater difficulty in learning than the majority of others of the same age; or
- has a disability for the purposes of the Equality Act 2010 (c. 15) which prevents or hinders him or her from making use of facilities for education or training of a kind generally provided for others of the same age in mainstream maintained schools or mainstream institutions in the further education sector.

Section 3 defines Additional Learning Provision (ALP) as:

- for a person aged three or over, educational or training provision that is additional to, or different from, that made generally for others of the same age in mainstream maintained schools or colleges, or in nursery education;
- for a child aged under 3, educational provision of any kind.

In other words it reflects the definition used for Special Educational Provision in England.

'Additional support needs' in Scotland

The situation is different in Scotland. Here, the Education (Additional Support for Learning) (Scotland) Act (2004) (as amended by the Education Act, 2009) established the concept of 'additional support needs'. Under this Act, a child or young person has such needs if 'for whatever reason', s/he is not likely to be able 'to benefit from school education provided or to be provided' for him/her 'without the provision of additional support' (Scottish Government, p. 18, §1). 'School education' here includes, in particular, 'such education that is directed to the development of the personality, talents and mental and physical abilities of the child or young person to their fullest potential' (ibid., §3). 'Additional support' is defined as:

> provision which is additional to, or otherwise different from, the educational provision made generally for children or, as the case may be, young persons of the same age in schools (other than special schools) under the management of the education authority for the area to which the child or young person belongs.

(ibid., p. 206)

THE LAW RELATING TO SPECIAL EDUCATIONAL, ADDITIONAL LEARNING, OR SUPPORT NEEDS ACROSS THE UK

In England and Wales, the 1981 Act is seen by many as the key piece of legislation concerned with children and young people who experience difficulties or have disabilities in education. It introduced 'statements of special educational need', which set out an analysis of the difficulties students experience in schools and the curricular and human and material resources needed to address them. In Northern Ireland the concept of special education needs was introduced into education legislation by the Education and Libraries (NI) Order (1986). All children and young people up to 19 years of age were to be provided with suitable education, regardless of ability or disability. Education and library boards were required to identify and assess children in their area who had special education needs. In Scotland, the organisation of education is devolved to the parliament in Edinburgh. A previous system of support in line with a special

educational needs framework has subsequently been redefined to broaden the narrow definition of Special Educational Needs (SEN), which had typically been used to define children with special needs, by establishing a framework for the policies that presume inclusion in mainstream schools.

As discussed below, legislative change across the United Kingdom has brought about considerable developments in both terminology and policy related to the concept of what constitutes a 'need' in education, and appropriate responses.

'CODES OF PRACTICE' RELATING TO NEEDS IN EDUCATION IN THE UK

In the years following the 1981 Education Act, a number of deficiencies in the procedures for assessing pupils thought to 'have special educational needs' had become apparent. The Audit Commission and Her Majesty's Inspectorate identified three key problems:

- lack of clarity about what constitutes special educational need and about the respective responsibilities of schools and LEAs;
- lack of systems to ensure that schools and LEAs are accountable for their work in the area of special needs;
- lack of incentives for LEAs to implement the 1981 Act.

(Audit Commission/HMI, 1992, para. 126)

In 1994, the government published a *Code of Practice for the Identification and Assessment of Special Educational Needs* (DfE, 1994) for use in England and Wales. The Code was intended to offer 'statutory guidance' to schools in England and Wales on how to interpret the law to address issues of ways to provide appropriate support to those with learning difficulties. It was designed on the model of industrial Codes of Practice, to provide a shared text for use at tribunals, should there be any dispute between parents/carers and the school and LEA (now LA) with regard to the appropriateness of provision. Similar publications were produced later in Northern Ireland and in Scotland, the legal framework and associated advisory documents are different.

Since that time, further Codes have been published offering statutory guidance to LAs, governing bodies, schools, and colleges as changes have been made to the law.

We discuss UK law in relation to special educational and additional support needs in more detail below.

LAW IN ENGLAND

The Children and Families Act (2014), has brought about a number of changes in the law in England. The revised system of supporting children and young people with SEN now applies to young people from birth to 25 years as long as they stay in education or training. This issue of age is important. In law, a child becomes a young person when s/he is no longer of compulsory school age (that is, s/he became 16 before the last day of the summer term (Section 83(2)). Once a child becomes a young person, s/he can take decisions in relation to the Act on his/her own behalf, rather than the parents, subject to a young person 'having capacity' to take a decision under the Mental Capacity Act (2005). If young people do not have the mental capacity to make a decision on their own, their parents will automatically be assumed to be making the decision on their behalf unless the Court of Protection has appointed a Deputy. It can never be assumed by a school or college that a young person does or does not have the mental capacity to make a decision, however. The decision about whether young people have mental capacity to make a particular decision is something that they and their parents should make in the first instance. This system will not cover children or young people if they are disabled and have health and/or social care needs but no SEN.

It is the LA's duty to ensure they identify all children and young people who have or may have SEN and/or disabilities in their geographical area. A child or young person with SEN is entitled to support that enables them to achieve the 'best possible educational and other outcomes'. Section 19 of Part 3 of the Act requires that the views, wishes, and feelings of children, young people, their parents, and their participation must be central to every decision the LA makes in regard to assessing a child or young person's SEN and how to support them. The school or college that a child or young person attends should put support in place to make sure this is happening. If it does not, the LA has the responsibility to ensure it does.

Statements of special education need[8] have been replaced by Education Health and Care Plans (EHCs). A young person in further

education is now legally entitled to the special educational provision specified in their EHC plan, but EHC plans do not apply to higher education. Only the LA can carry out an EHC needs assessment to identify needs and provision to meet those needs. If an EHC plan is then issued, the LA has the legal duty to ensure that the educational provision is made. This duty can never be delegated to a school or college whatever funding arrangements are in place. Where there is health provision in an EHC plan, the local health commissioning body – usually the Clinical Commissioning Group – has the duty to provide. It is also the local authority's duty to provide the social care provision in an EHC plan if it results from an assessment under social care legislation.

Every LA must develop and publish a 'Local Offer' (§30) that sets out the services and provision it expects to be available both inside and outside the LA's area for children and young people with SEN and/or a disability. The Local Offer should make clear what special educational provision it expects the schools and colleges in its area to make from their existing budgets. Local authorities have a duty to publish comments about the Local Offer from children, young people, and their parents, and the action they intend to take in response (§30(6)).

The LA is obliged to consider identifying a personal budget (§48) for educational provision for a child or young person if the parent requests it when they are carrying out an EHC needs assessment or when they are reviewing an EHC plan. The personal budget is the notional amount of money that would be needed to cover the cost of making the special educational provision specified in the EHC plan. A head teacher or principal has a veto if they do not agree to a direct payment being made for special educational provision that would need to be delivered in their school or college.

SPECIAL EDUCATIONAL NEEDS AND DISABILITY CODE OF PRACTICE: 0 TO 25 YEARS (DFE/DOH, 2015) IN ENGLAND

The *Codes of Practice* across the UK and Northern Ireland offer a somewhat different conceptualisation of why students might experience special or additional learning and/or support needs. In England the recommendation in the *Special Educational Needs and Disability Code of Practice: 0 to 25 Years* (DfE/DoH, 2015, §5.32)

is that assessment and provision should focus on four broad 'areas of need': communication and interaction; cognition and learning; social, emotional, and mental health; and sensory and/or physical. Clearly there is considerable overlap between the areas of need. For example, in terms of the first, communication and interaction, the Code (§6.28) advises:

> Children and young people with speech, language and communication needs (SLCN) have difficulty in communicating with others. This may be because they have difficulty saying what they want to, understanding what is being said to them or they do not understand or use social rules of communication. The profile for every child with SLCN is different and their needs may change over time. They may have difficulty with one, some or all of the different aspects of speech, language or social communication at different times of their lives.

The following paragraph (§6.29) notes that autistic spectrum disorder may be linked both to language difficulties and also to cognition:

> Children and young people with ASD, including Asperger's Syndrome and Autism, are likely to have particular difficulties with social interaction. They may also experience difficulties with language, communication and imagination, which can impact *on how they relate to others.*

When we consider the extent to which thinking is dependent on language it is clear that lack of facility with receptive and expressive language has important implications, especially for cognition and learning.

In relation to the following area, 'cognition and learning', the Code (§6.30) states:

> Learning difficulties cover a wide range of needs, including moderate learning difficulties (MLD), severe learning difficulties (SLD), where children are likely to need support in all areas of the curriculum and associated difficulties with mobility and communication, through to profound and multiple learning difficulties (PMLD), where children are likely to have severe and complex learning difficulties as well as a physical disability or sensory impairment.

Specific learning difficulties, described as 'a range of conditions such as dyslexia, dyscalculia and dyspraxia' (§6.31) are also included in this area.

The third area, 'social, emotional and mental health' difficulties (SEMH)[9] is defined (§6.32) as:

> ...a wide range of social and emotional difficulties which manifest themselves in many ways. These may include becoming withdrawn or isolated, as well as displaying challenging, disruptive or disturbing behaviour. These behaviours may reflect underlying mental health difficulties such as anxiety or depression, self-harming, substance misuse, eating disorders or physical symptoms that are medically unexplained.

Other sub-areas, described here as 'disorders', are also included here: 'attention deficit disorder, attention deficit hyperactive disorder or attachment disorder'. Schools and colleges are exhorted to manage the effect of any disruptive behaviour so it does not adversely affect the learning and progress of peers (§6.33).

The final area, sensory and/or physical needs, is defined in terms of 'disability which prevents or hinders them [i.e. learners] from making use of the educational facilities generally provided' (DfE/DoH, 2015, §6.34). These difficulties may include 'vision impairment (VI), hearing impairment (HI) or a multi-sensory impairment (MSI)' and/or 'a physical disability (PD) [that] require additional ongoing support and equipment to access all the opportunities available to their peers'.

When reflecting on the way in which these areas of need are described, it seems clear that all of them are described in terms of a deficit within the learner, for example, in the reference to 'disorders'.

Guidance in the Code of Practice in England

In England, schools and other settings, and now further education, colleges have clear duties under the *Special Educational Needs and Disability Code of Practice: 0 to 25 Years* (DfE/DoH 2015) and must 'have regard' to its contents. They should either follow its guidance or else be able to explain why they have not done so and what alternative provision has been made. Important sections in the Code

reflect implications of the 2014 Children and Families Act in offering guidance on:

- provision for disabled children and young people aged zero to 25 years, as well as those with SEN, to improve outcomes;
- a stronger focus on the participation of students and their families in decision-making;
- joint commissioning of services to ensure cooperation between education, health services, and social care, and a new coordinated assessment process with education, health, and care plans to replace statements;
- what must be included in the 'Local Offer';
- how schools and colleges might adopt a graduated approach to identifying and providing for students with SEN with four stages of action – assess, plan, do, review – to replace the previous 'School Action' and 'School Action Plus' categories. The first step to supporting individual children's needs is high quality teaching by classroom teachers, differentiated for individual students;
- access to impartial advice that LAs must provide for families and students with SEN;
- record keeping, with evidence of pupil progress, a focus on outcomes, and a rigorous approach for monitoring and evaluation of support that has been provided; and
- funding. At the time of writing, LAs must ensure schools and academies have sufficient funding in their delegated budget to enable them to support pupils' special educational needs where required up to the mandatory cost threshold of £6,000 per pupil. This is known as the notional SEN budget. This notional budget in schools is not ring-fenced. The school is expected to provide high quality support from its whole budget with the LA providing top-up funding where the cost of the SEN provision exceeds the threshold.

Guidance given in the various Codes of Practice across the UK about statutory assessment is briefly referred to below and discussed in more detail in the section on statutory assessment in Chapter 10.

CRITICISMS OF THE SYSTEM IN ENGLAND

Over the years there have been a number of criticisms of policy, practice, and provision for young people identified as experiencing SEND in England. Identifying and addressing the needs of young people who experience difficulties of various kinds can sometimes be incorporated into regular day-to-day activities, but often will need additional resourcing. This often also has both time implications and the will to privilege some young people's learning needs over others.

Special educational needs and disability review (OFSTED, 2010)

Despite statutory guidance, consistency of the identification of SEN and provision for young people has varied widely across the country. The *Special educational needs and disability review* (OFSTED, 2010) was commissioned by the previous Secretary of State to evaluate how well the legislative framework and arrangements were serving disabled children and young people and those who experience SEN. This report noted that, in some local areas, the identification of needs was well managed and appropriate; there was an appropriate focus on outcomes for young people rather than simply what services were provided; there was effective early intervention and rigorous monitoring of individual progress; and aspirations were high and enabled young people to be as independent as possible. However, the combination of effective identification and good quality provision was uncommon. Across education, health services, and social care, assessments differed and thresholds for securing additional support were at widely varying levels. Children and young people with similar needs were not being treated equitably and appropriately. There was poor evaluation by a wide range of public agencies of the quality of additional support provided for children and young people: too often, the agencies focused simply on whether or not a service was being provided rather than its actual effectiveness.

House of Commons Select Committee report (Great Britain, Parliament, House of Commons, 2019)

More recently, a House of Commons Select Committee report, published in October, 2019 (Great Britain, Parliament, House of

Commons, 2019), was highly critical of a number of aspects of current SEND policy and provision in England. It considered that:

> Let down by failures of implementation, the 2014 reforms have resulted in confusion and at times unlawful practice, bureaucratic nightmares, buck-passing and a lack of accountability, strained resources and adversarial experiences.
>
> (https://publications.parliament.uk/pa/cm201919/cmselect/cmeduc/20/2003.htm – accessed 15.12.21)

Implementation of the 2014 Act was hindered

> by poor administration and a challenging funding environment in which local authorities and schools have lacked the ability to make transformative change [...] The significant funding shortfall is a serious contributory factor to the failure on the part of all involved to deliver on the SEND reforms.

A rigorous accountability mechanism has been lacking, with those 'required, or enabled, to "police" the system […] limited in part by an apparent unwillingness to grapple with unlawful practice'. Many young people's, and their families' experiences have been very poor. 'The distance between young people's lived experience, their families' struggles and Ministers' desks is just too far'. Families have to 'wade through a treacle of bureaucracy, full of conflict, missed appointments and despair'. Education, Health and Care Plans are too often no more than a Statement by another name because effective meshing of the roles of health and social care providers had not taken place, and there were serious gaps in therapy provision across the country'. The report concluded: 'what is needed is serious effort to ensure that issues are fully grappled with, and the 2014 Act works properly, as was intended'.

Issues related to academisation of schools

Some researchers have taken the view that academisation of schools and an approach that sees education as a commodity in the school marketplace (Heilbronn, 2016) may be associated with overt or

covert policy intentions not to include learners who experience SEND because their entitlements to special provision can be costly.

> Complex and unfair admissions processes are a longstanding problem in England [...] While this problem is not new to the school system, there is a danger that the growth of academies has made the situation worse. This is because schools are more likely to manipulate admissions when they act as their own admissions authority and administer the system themselves. [...] the growth in the number of schools acting as their own admissions authority does appear to have increased the risk of bad practice in this area.
>
> (Muir and Clifton, 2014, p. 6)

The Academies Commission (2013) found, for example, that some academies manipulated admissions to achieve school improvement rather than relying on strong leadership. More recently, Black et al. (2019, p. 3) note anecdotal evidence of academies being less willing to offer places to learners with significant levels of special needs SENs 'by deploying covert selection'. Galton and MacBeath (2015) in an in-depth study of a range of contemporary English schools reported the increased pressure on school leaders to avoid 'reputational damage' (p. 21) and maintain their competitive status by not taking in learners who may harm their academic credibility through poor academic results. They also reported anecdotal evidence from head teachers that neighbouring academies seemed to be 'cherry picking wealthier pupils' and 'excluding the neediest' (p. 49). Exclusion data may also suggest that academy schools are more likely to exclude students permanently.

LAW IN WALES

A phased approach has been taken to introducing the Additional Learning Needs and Education Tribunal (Wales) Act 2018 ('the Act'), the ALN Code for Wales and regulations made under the Act. The new system is being implemented between September 2020 and July 2023 and has been designed to support children and young people from birth; whilst they are in school; and, if they are over compulsory school age, they are in further education. During this period, the ALN system will operate in parallel to the special educational

needs (SEN) system. Existing support plans are being replaced with a new statutory plan called an Individual Development Plan (IDP) to which all learners with ALN will be entitled, regardless of the severity or complexity of their learning difficulty or disability. Wishes and feelings of learners and their parents will be considered at all stages of the process. ALN will be identified, and IDPs will be prepared and maintained by the educational institution attended by the learner. Maintaining an IDP requires securing the additional learning provision included in it and reviewing the IDP as and when required to ensure the information and the provision described in it remains appropriate. The statutory status of the IDP will be the same irrespective of needs, with the same rights of appeal to the independent Education Tribunal for Wales for anyone with an IDP.[10] The tribunal's decision will be legally binding on LAs and further education institutions (FEIs).

One of the core aims of the Act is to create a bilingual system of support for ALN.

The ALNCo is a statutory role which will replace the existing non-statutory SENCo role that exists in most maintained schools in Wales and similar non-statutory roles that are undertaken in FEIs in Wales. Section 60 of the Act requires FEIs and mainstream maintained schools including nurseries and pupil referral units to have a designated ALNCo.

The Act places a duty on all local health boards to designate an officer, known as the Designated Education Clinical Lead Officer (DECLO), to bear responsibility for coordinating the health board's functions in relation to children and young people with ALN. S/he must either be a registered medical practitioner or a registered nurse, or another health professional.

Guidance in the Additional Learning Needs Code for Wales (2021)

In December 2018, the draft Additional Learning Needs (ALN) Code and a number of regulations which support the Additional Learning Needs and Education Tribunal (Wales) Act 2018 were published for consultation. The Welsh Government intended to lay the Code before the National Assembly for Wales for approval in 2020, with the intention of it being issued and published by the end of

2020. It was hoped that all subordinate legislation would also be in place by the end of 2020. However, these plans were delayed as a result of the pandemic (https://gov.wales/written–statement–implementation–additional–learning–needs–and–education–tribunal–wales–act–2018 – accessed 05.12.21). The Code (NAW, 2021) has now been published and came into effect in September 2021.

From the beginning, the Code establishes that, together with the 2018 Act, its intention is to place 'the learners' views, wishes and feelings at the heart of the process of planning the support required to enable them to learn effectively and achieve their full potential' (§1.1). The principles underpinning the ALN system are described as:

a. A rights-based approach where the views, wishes and feelings of the child, child's parent or young person are central to the planning and provision of support; and the child, child's parent or young person is enabled to participate as fully as possible in the decision making processes and has effective rights to challenge decisions about ALN, ALP and related matters.

b. Early identification, intervention and prevention where needs are identified and provision put in place at the earliest opportunity and where possible interventions are put in place to prevent the development or escalation of ALN.

c. Collaboration and integration where services work together to ensure ALN are identified early and appropriate co-ordinated support is put in place to enable children and young people to achieve positive expectations, experiences and outcomes.

d. Inclusive education where the majority of children and young people with ALN are supported to participate fully in mainstream education and a whole setting approach is taken to meeting the needs of learners with ALN.

e. A bilingual system where all reasonable steps are taken to deliver ALP in Welsh for children and young people who require support through the medium of Welsh, with scope for increasing the delivery of ALP in Welsh over time.

(§3.2)

The Code lays out the new ALN system and encourages inclusive education where children and young people are supported to

participate fully in mainstream education, wherever feasible, and a whole setting approach is taken to meet the needs of all learners. The Code includes statutory guidance 'about the exercise of functions under Part 2 of the Act (which establishes the statutory system in Wales for meeting the ALN of children and young people) […] and on other matters connected with identifying ALN and meeting the needs of children and young people with ALN, and describes relevant statutory requirements, including ones in the Act' (§1.2).

As in the Code in England, it is suggested that learning difficulties or disabilities can be 'broadly classified' into four areas (§2.34):

a.   Communication and interaction;
b.   Cognition and learning;
c.   Behaviour, emotional and social development;
d.   Sensory and/or physical.

The Code (§2.7) advises that a number of tests should be applied to decide whether a young person has ALN:

i.   Does the child or young person have a greater difficulty in learning than the majority of others of the same age?
ii.   Does the child or young person have a disability (within the meaning of the Equality Act 2010) which prevents or hinders the child or young person from making use of facilities for education or training of a kind generally provided for others of the same age in mainstream maintained schools or mainstream FEIs?

> If the answer to either (or both) question is 'yes', it is necessary to proceed to apply the second test [...].whether the child or young person's learning difficulty or disability calls for ALP.

The Code describes the IDP as a flexible document that will vary depending on the different and changing needs of learners as they develop over time. The IDP template in Annex C of the Code includes a section 'About me' to enable the young person to describe his/her needs and personality, including, if s/he so chooses, what is important to and for them, as required by the 2018 Act. The Code outlines the required content for an IDP: the child or young person's

ALN and the ALP that is called for by their ALN. The IDP should be (§23.8):

a. created by involving, where appropriate, agencies and professionals working together to identify the child or young person's ALN and the provision to meet those ALN;
b. created through collaboration with the child or young person, and in the case of a child, their parent;
c. developed on a flexible, person-centred basis that reflects the needs of the child or young person;
d. written in a style that reflects that it is the child or young person's plan and not simply part of an administrative process.

'All reasonable steps' must be taken to secure the provision in Welsh where appropriate.

The Code takes account of the Additional Learning Needs Co-ordinator (Wales) Regulations (2020) that prescribe the qualifications and experience required to be an ALNCo and his/her functions. The ALNCo is seen as the individual who, at a strategic level within a school or further education institution, ensures the needs of all ALN learners within the education setting are met and supports other staff to fulfil their duties towards young people who experience difficulties in learning. S/he should therefore be a member of the senior leadership team (SLT) or have a clear line of communication to the team.

CRITICISMS OF THE SYSTEM

The National Assembly for Wales White Paper (2014) pinpointed a number of problems with the previous Welsh SEN system that justified reforming the existing legislative framework for SEN:

• the term 'SEN' was identified as stigmatising, hence replaced with 'ALN' that was argued to be less so;
• lack of clear guidance and inconsistencies in criteria and approach across Wales created a perception that the current system had provided legal status to provision listed on a Statement of SEN but did not for others with needs but no Statement. This led to an intention by the National Assembly of Wales to provide statutory

protection to all learners identified as experiencing difficulties in learning;
• the existing system was too complex, making it problematic to provide appropriate flexible approaches to meet needs.

At the time of writing this volume it remains to be seen whether the new system for Additional Learning Needs will succeed in overcoming these problems.

LAW IN NORTHERN IRELAND

Part II of the Education Order (Northern Ireland) (1996) remains the basis of legislation related to special educational needs in the province. The 1996 Education Order was amended by the Special Educational Needs and Disability (Northern Ireland) Order (SENDO) (2005). Part II, Articles 3 to 12, and Schedule 1 to specifically take account of disability legislation introduced across the UK in 2001.

A proposition to amend the law related to SEND was introduced in the Northern Ireland Assembly on 2 March 2015 through the Special Educational Needs and Disability Bill (Bill 46/11–16). In Northern Ireland, a Special Educational Needs and Disability Act (Northern Ireland) (2016) received Royal Assent in March 2016. Implementation of the new SEN Framework was originally anticipated during 2020 but has been delayed. A revised *Code of Practice* is being developed at the time of writing this volume (January 2022).

The Department of Education (Northern Ireland) advises that 'The Act places new duties on Boards of Governors, the Education Authority (EA) and health and social services authorities, and provides new rights for parents and children over compulsory school age' (https://www.education-ni.gov.uk/articles/review-special-educational-needs-and-inclusion – accessed 06.12.21). The EA will be required to 'take account of the views of the learners when deciding special educational provision', and also 'organise an independent dispute avoidance and resolution service and mediation arrangements'. Increased cooperation between the EA and health and social service authorities will be necessary to make appropriate provision to address a learner's SEN. In grant-aided schools, boards of governors will be required to ensure that a learning support coordinator is appointed to coordinate provision for learners. Schools will be

required to complete and review a personal learning plan for each learner with SEN and ensure that, during transition from one grant-aided school to another, this is transferred.

Guidance in the Code in Northern Ireland

The draft SEN Code has been designed to reflect statutory duties and obligations detailed in current legislation and provides guidance on how this is to be put into practice in schools, the EA, and other relevant bodies. Just to give two examples it is anticipated that the current five stages of SEN provision in schools should be reduced to three: SEN provision in school; SEN provision in school with additional support from EA SEN services or another relevant body; SEN provision in school with additional provision made available through a Statement of SEN. The personal learning plan (PLP) will be the key information and evidence base when seeking EA support through the EA plan[11] or arrangements for special educational provision. The draft Code offers practical guidance for creating, maintaining, reviewing, and, as appropriate, the sharing of a PLP. The information to be collated 'includes expected outcomes, teaching strategies and resources, special educational provision to be made, monitoring and review arrangements and the outcome of the special educational provision on the child's progress' (DENI, June 2021, p. 5). A *Summary Report of Consultation Responses* to the public consultation on the draft Code (DENI, June 2021, p. 41) advises that:

> Once the Regulations complete their legislative journey through the Assembly and are made law, the draft SEN Code will be amended to reflect the required changes as appropriate. When the draft SEN Code is finalised a new Code of Practice will come into operation on a date to be specified and will be available on the DE and EA websites.

LAW IN SCOTLAND

The Education (Additional Support for Learning) (Scotland) Act 2004 provides the legal framework for LAs and other agencies to support all children and young people who require it through the provision of additional support for learning. The Act places duties on education authorities (and in certain circumstances health, social work, and skills development Scotland) to plan and make joint

provision for all children and young people with complex or multiple additional support needs. Where their needs are significant, requiring support from education and another appropriate agency that would last more than one year, children and young people may require a statutory 'coordinated support plan' to combine all of the support necessary to meet their learning needs. This Act also sets out rights for parents, establishes mechanisms for resolving differences for families and authorities through mediation and dispute resolution, and established the Additional Support Needs Tribunals (Scotland).

The legislation was amended by the Education (Additional Support for Learning) (Scotland) Act 2009. The amendments related, among other issues, to increasing the rights of parents to make out-of-area placing requests and expanding access to the Additional Support Needs Tribunals for Scotland (ASNTS), and to the provision of a new national advocacy service for parents and young people. In addition, the 2009 Act automatically deemed that all children and young people in care have additional support needs unless the education authority determined that they do not require additional support in order to benefit from school education.

GUIDANCE IN THE *SUPPORTING CHILDREN'S LEARNING CODE OF PRACTICE* IN SCOTLAND

In Scotland, a revised *Supporting Children's Learning Code of Practice* was published in 2017 to explain (Scottish Government, 2017, p. 6):

> ...the duties on education authorities and other agencies to support children's and young people's learning. It provides guidance on the [2009] Act's provisions as well as on the supporting framework of secondary legislation. [...] It also sets out arrangements for avoiding and resolving differences between families and education authorities.

In Scotland the approach to conceptualising areas of need is rather different from other UK countries (Scottish Government, 2017, p. 11). Children or young people who may require additional support for a variety of reasons are those who:

- have motor or sensory impairments;
- have low birth weight;

- are being bullied;
- are children of parents in the armed forces;
- are particularly able or talented;
- have experienced a bereavement;
- are affected by imprisonment of a family member;
- are interrupted learners;
- have a learning disability;
- have barriers to learning as a result of a health need, such as foetal alcohol spectrum disorder;
- are looked after by a local authority or have been adopted;
- have a learning difficulty such as dyslexia;
- are living with parents who are abusing substances;
- are living with parents who have mental health problems;
- have English as an additional language;
- are not attending school regularly;
- have emotional or social difficulties;
- are on the child protection register;
- are refugees;
- are young carers.

In Scotland a wide range of contextual factors broadly grouped into four overlapping areas are identified as potentially creating barriers that may lead to the need for additional support: 'learning environment; family circumstances; disability or health need; social and emotional factors' (p. 23). Forms of additional support are categorised under three broad headings (p. 20): 'approaches to learning and teaching; support from personnel; provision of resources'.

The Code (§84) sets out a phased approach to addressing individual needs and a process of 'personal learning planning' (PLP):

> All children with additional support needs should be engaged in personal learning planning and for many this process will be sufficient to address their additional support needs.

Personal learning planning (PLP) should be realistic and reflect both strengths and needs. Plans should be designed to result in goals related to the learner's own circumstances. The family, learner, and school should be fully involved in the PLP process, and the learner should have the opportunity to discuss his/her progress with a member of staff regularly.

In Scotland, if learners require more detailed planning than through PLP, they may have an individualised educational programme (IEP). This details the learner's additional support needs, how these are to be met, the learning outcomes expected and the additional support that is needed. Relevant external agencies – health, social work, or voluntary – should be involved in developing the IEP, together with the learner and his/her family so that the plan is coordinated.

STATUTORY ASSESSMENT OF SPECIAL EDUCATIONAL AND ADDITIONAL SUPPORT NEEDS AND DISABILITY

Current legislation and guidance across the UK refers to individual plans for recording the nature of a student's difficulties and how they are going to be addressed. It is expected that both parents and students will be actively involved in creating and assessing the effectiveness of the plans for individual students. The plan might include adaptations to normal classroom activities, or a special programme of individual work for the child, or both. It should also include criteria for judging success, a section for recording outcomes, and a date for reviewing the plan. The student's progress can then be reviewed regularly to see if the aims of the plan are being achieved.

If, however, a learner fails to make 'adequate progress', then additional or different action should be taken. Of the learners that settings, schools, or colleges identify as having special educational, or additional support, needs, those who have longer term or more severe disabilities or difficulties may the subject of statutory assessment. In Northern Ireland, at least until revised legislation is agreed, such assessment may result in the issuing of a statement. In Scotland, provision for children and young people with additional support needs associated with complex or multiple factors which require a high degree of support from education authorities and other agencies, is organised through the provision of a statutory document called a 'co-ordinated support plan'. In England, schools and colleges should identify and support young people with SEN and/or a disability either from within their own resources under what is now to be called 'SEN Support' or, where the degree of need is such that it requires a higher level of resourcing than is available from these resources, through an education, health and care (EHC) plan.

CREATING A POSITIVE LEARNING ENVIRONMENT FOR ALL

The various Codes of Practice assume that teachers will offer differentiated learning opportunities for all students, including those with special educational needs and disabilities. For example, the 2015 Code in England (§6.12) reads:

> All pupils should have access to a broad and balanced curriculum. The National Curriculum Inclusion Statement states that teachers should set high expectations for every pupil, whatever their prior attainment. Teachers should use appropriate assessment to set targets which are deliberately ambitious. Potential areas of difficulty should be identified and addressed at the outset. Lessons should be planned to address potential areas of difficulty and to remove barriers to pupil achievement. In many cases, such planning will mean that pupils with SEN and disabilities will be able to study the full national curriculum.

Strategies recommended for particular special educational needs are very often useful for most other students (Lewis & Norwich, 2000). It might therefore be sensible for newly qualified teachers to concentrate at first on strategies that improve the learning environment and increase the range of teaching strategies rather than assuming that something different must be organised for every individual.

SUMMARY

Over the years, the conceptualisations of differences between people, the development of notions of entitlements and human rights, and the change in focus of, and on, education itself, have all contributed to the complexity and changing nature of the field of special educational needs.

The term 'special educational needs', used since Warnock (DES, 1978), is part of the discourse which, according to Salmon (1995) and Corbett (1996), for example, suggests a deficit model. At the same time, we must recognise, along with the disability movement, that failing to acknowledge difference can be counterproductive to the learning needs of a student and be interpreted as disrespectful to that person's life experiences. Whatever an individual's view, parents,

teachers, and other professionals in education must conform to aspects of the official definitions when engaged in formal processes under the Act, such as assessment and statementing.

In England and Northern Ireland the definition of 'special educational needs' has remained largely constant since Warnock (DES, 1978). In Wales, the Additional Learning Needs and Education Tribunal (Wales) Act 2018 has introduced the same concept of additional learning needs as England, while in Scotland the Education (Additional Support for Learning) (Scotland) Act (2004) (as amended) established the concept of 'additional support needs' with a frame of reference that conceptualises need as both related to the context in which difficulties arise, and also issues within the individual.

NOTES

1 In Northern Ireland, the relevant disability equality legislation is the Disability Discrimination (Northern Ireland) Order 2006. This Order extends previous legislation, the Disability Discrimination Act 1995, to bring the functions of public authorities within the scope of disability legislation and imposes a new duty to promote positive attitudes towards disabled people and encourage participation in public life (§49A).

2 These proposals have, at the time of writing (January, 2022), yet to be formally ratified in law.

3 See Appendix A in the document 'Planning Improvements for Disabled Pupils' Access to Education' (Scottish Government, 2014, https://www.gov.scot/publications/planning-improvements-disabled-pupils-access-education-guidance-education-authorities-independent/ – accessed 04.12.21 for a description of the overlap between the Equality Act 2010 and the Education (Additional Support for Learning) (Scotland) Act (as amended).)

4 Education and Library Boards in Northern Ireland.

5 Child or young person in England.

6 Or disability in England.

7 The Act uses the term 'child' to mean someone who is at or under compulsory school age and 'young person' as someone who is over compulsory school age but under 25.

8 See Chapter 10 for an explanation of statutory assessment of special educational needs that previously might have resulted in a Statement of SEN, but now may result in an EHC plan.

9 This area was first termed 'emotional and behavioural difficulties' (EBD), originally formally used by Warnock (DES, 1978), and later

translated into 'social, emotional and behavioural difficulties' (SEBD), before being reconceptualised.

10 This is clearly different from the situation in England where EHCPs are restricted to learners with the most complex needs.

11 Education authorities are required to prepare and publish their 'plan of arrangements' for special educational provision including resources, advisory and support services, and training.

MODELS OF HUMAN ATTACHMENT, LEARNING, AND BEHAVIOUR

INTRODUCTION

Crucial to understanding difficulties in learning and behaviour, and ways to address these, is familiarity with common frames of reference within which learning and behaviour is viewed. How we understand learning and what lies at the root of a learning or behaviour 'difficulty' in school has a very strong influence on how we respond.

Over time, different social or psychological understandings, together with the different frames of reference that are associated with each one, have given rise to different interventions to address needs in education. In recent years there has been a clear focus on social and emotional issues, for example, with a return to discussion of the importance in the learning process of the quality of relationships between children and significant others in their lives. This involves consideration of the way in which early attachment(s) to one or more primary caregiver(s) early on in life may affect an individual's behaviour and capacity to learn, in particular the ability to relate to other people, perhaps even throughout life. Then in terms of learning theories, there is an important, though in some ways simplistic, distinction that we can make between the view that the mind is a passive recipient of knowledge and merely reacts to outside influence, and the view that it is proactive in interpreting

and constructing the world. In terms of frames of reference from educational psychology, a passive view of the human mind is most commonly reflected in the behaviourist model. Here all behaviour is assumed to be learned. Underlying behavioural principles is a basic concern with observed events, that is, what people actually do, not assumptions about intentions or statements *about* behaviour and its effects. In the world of provision for special educational needs or additional support, individual education, learning, or behaviour plans have often been drawn up with interventions designed to shape learning and behaviour that are 'done to' the child. A very different view of the human mind, that it is active in reaching out and constructing meaning, is reflected in frames of reference most commonly associated with constructivist and sociocultural views of learning.

We begin this chapter with a discussion of attachment theory (Bowlby, 1952), which is an example of a psychological theory of human development that has grown in influence over recent years, partly in response to the growing concern about young people's emotional and mental health. Subsequently we discuss the principles of behaviourist views of the learning process, cognitive–behavioural approaches, and then constructivist and social constructivist understandings. We conclude with a problem-solving approach to conceptualising provision for young people who have special educational, or additional learning or support, needs.

ATTACHMENT THEORY

It is clear from the work of a number of nineteenth-century philanthropists who established educational provision in the early years, for example, Owen (1820, 1824, 1857), Pestalozzi (1801/1894), and Froebel (1826) that what happens in our earliest years plays a crucial role in who we become as adults and how we live our lives. An early theory of social development, so-called 'attachment theory' developed by Bowlby in the mid-twentieth century (1944, 1952) reflects a view that early relationships with caregivers play a major role in child development and continue to influence social relationships throughout life. It suggests that children are born with an innate need to form attachments that ensure their survival through the care and protection of their caregivers. In turn, caregivers offer a secure base from which children can explore their world with confidence.

According to Bowlby (1988, pp. 26–27), attachment behaviour is 'any form of behaviour that results in a person attaining or maintaining proximity to some other clearly identified individual who is conceived as better able to cope with the world'. Key to understanding the significance of Bowlby's work is his view that:

> children deprived of maternal care ... may be seriously affected in their physical, intellectual, emotional and social development ... Bowlby asserts that 'prolonged separation of a child from his mother (or mother substitute) during the first five years of life stands foremost among the causes of delinquent character development'.
>
> (Bowlby, 1944, 1952; Holmes, 1993, p. 39)

Bowlby conceptualised three patterns of attachment behaviour:

i. 'Secure' attachment that is established in situations where the young child is confident that the adult carer will be available and responsive in situations that may be difficult or frightening:

> Those children who are the most stable emotionally and make the most of their opportunities are those who have [adult carers] who, whilst always encouraging their children's autonomy, are none the less available and responsive when called upon ... for a person to know that an attachment figure is available and responsive gives him [*sic*] a strong and pervasive feeling of security, and so encourages him to value and continue the relationship.
>
> (Bowlby, 1988, pp. 12, 27)

A feeling of security leads to the development of confidence, willingness to try out new things, and tolerance of brief separation from the caregiver(s).

> It seems clear that sensitive loving care results in a child developing confidence that others will be helpful when appealed to, becoming increasingly self-reliant and bold in his exploration of the world, co-operative with others, and also ... sympathetic and helpful to others in distress.
>
> (Bowlby, 1988, p. 82)

ii. If young children are not confident that the carer(s) will be available when needed, the attachment will develop as 'anxious resistant'. As this expression suggests, children will tend to cling to the adult figure(s) and be anxious about exploring the world.

> [...] when a child's attachment behaviour is responded to tardily and unwillingly and is regarded as a nuisance, he is likely to become anxiously attached, that is, apprehensive lest his caregiver be missing or unhelpful when he needs her and therefore reluctant to leave her side, unwillingly and anxiously obedient, and unconcerned about the troubles of others.
>
> (Bowlby, 1988, p. 82)

iii. Where young children have learnt to expect rejection when they look for care, the attachment that develops becomes 'anxious avoidant' as they attempt to become emotionally self-sufficient. The self that develops alongside this is narcissistic. The outcome of active rejection by caregivers may mean that a pattern of behaviour develops in which avoiding them while at the same time wanting closeness and care results in angry behaviour.

Although there have been criticisms of Bowlby's views, the study of early childhood is now well established. It is generally acknowledged that young children quickly attach themselves emotionally to their adult carers and progress through well-documented stages of development. Moving successfully from one stage to the next stage depends on whether earlier needs have been met.

From the discussion above we can see why Bennathan and Boxall (2000) argue that the greater likelihood of learning, personality, and behaviour difficulties in the young children of families experiencing disadvantage and deprivation are the result of inadequate early care and support from families who struggle with poverty, damaged relationships, and harsh and stressful living conditions.

LEARNING AND BEHAVIOUR FROM A BEHAVIOURIST VIEW

Principles linked to behaviourist psychology (Skinner, 1938, 1953; Baer et al., 1968) have often dominated thinking about how to

intervene when things are seen to have gone wrong in terms of learning and behaviour in educational institutions (Dwivedi & Gupta, 2000). It is particularly important, therefore, to be familiar with the frame of reference associated with this approach.

UNDERSTANDING PRINCIPLES OF BEHAVIOURISM

Behaviourist approaches assume that all behaviour is learnt. Where the problem is located determines where the solution is to be found. There are two different ways of looking at this:

- Research over a long period of time suggests that aspects of a setting – so-called 'antecedent' conditions – may exert a powerful control over, or 'condition', behaviour. It may be that something about a particular learning environment, for example, the physical properties or the presence or behaviour of an adult, has provoked good, or alternatively poor, behaviour and that learners have come to associate good, or poor behaviour, with that setting (Glynn, 2004). This is the so-called 'classical conditioning' understanding of learning and behaviour. The principle of identifying the antecedents of undesirable behaviour and then deliberately altering them to change learners' behaviour has often been applied to attempts to modify interactions between teachers and young people in school contexts.

- Secondly, as early work with animals has suggested (for example, Skinner, 1938), learning may be seen as reinforced through a process of 'operant' conditioning, where behaviours are strengthened or weakened by their consequences. In a famous sequence of trial-and-error learning tasks, rats learnt that when they pressed a lever they would be rewarded with food (Skinner, 1938). Learning involved the formation of a stimulus–response association in the rats' memory, that is, pressing the lever and finding food. Reinforcement through a reinforcer, in this case food, strengthened the association between stimulus and response. If the reward was removed and, hence, the link between pressing the lever and finding the food was broken, the rats' behaviour would gradually cease through 'extinction'. Translated into the context of a setting or school, there is an implication from this that young people can learn how to behave appropriately in response to positive reinforcement (rewards). The opposite of positive reinforcement

is negative reinforcement. Undesirable behaviour can be discouraged, and desired behaviour encouraged, through putting a stop to something unpleasant. Where something unpleasant occurs as a result of an action it is viewed as 'punishment'.

Much of the work in response to issues of individual students' behaviour that is perceived as disturbing by teachers has been based 'on behavioural management approaches (which employ strategies such as positive reinforcement, response cost, extinction and so on) where the reinforcing conditions or consequences of a behaviour are adjusted in order to moderate its frequency' (Dwivedi & Gupta, 2000, p. 76). Operant conditioning – reinforcing what teachers want their students to do again, ignoring or punishing what they want students to stop doing – has been widely applied in teaching in UK classrooms since the 1970s (Merrett, 1985). One way to address undesirable behaviour is therefore to ensure that whatever is rewarding and reinforcing is removed so that the behaviour is extinguished. In addition, whenever individuals behave in ways that are seen as more appropriate, they should be rewarded in a way that clearly recognises the greater acceptability of the new behaviour within contexts where that behaviour is clearly acceptable.

Applying behavioural principles to difficulties in behaviour and learning

Behavioural principles can be applied to changing behaviour at an individual or group level. Rogers (1994b, 1994c), for example, encourages adopting a behavioural approach towards teaching primary school pupils whom he describes as 'behaviourally-disordered' (BD) to take responsibility for their own behaviour. He notes: 'While most students respond to the normal socialisation into rights–respecting behaviour, some will need to be *specifically taught*'. He goes on to comment, 'learning targets can be developed as specific *behaviour* plans that involve teacher modelling, student-rehearsal and feedback and encouragement in the natural setting of the classroom' (Rogers, 1994a, pp. 166–67).

Effective behaviour management is not simply about increasing and decreasing behaviours, but also about teaching students to distinguish between settings (times and places) where certain behaviours are appropriate and acceptable, and other settings where they are not. In Rogers' view, we should not excuse students from 'taking

ownership for their disruptive behaviour', or 'facing accountability for such behaviour by facing appropriate consequences' or 'learning that behaviour is not an accident of birth or location', and that 'one can learn to make better and more conscious choices about behaviour' (Rogers, 1994a, p. 167). Strategies to maximise students' learning of new behaviours include 'shaping', which breaks complex tasks down into a series of steps and ensures that each step is reinforced in a particular sequence. Other procedures include modelling, where students are rewarded for matching the behaviour being displayed for them.

From a behaviourist viewpoint, families and practitioners can encourage compliance at home and in educational institutions and classrooms by making the setting conditions – in other words, home, school, or classroom rules – consistent, and the consequences for unacceptable behaviour very clear. It is very important to stress here that application of behaviourist principles should be consistent, otherwise there is a serious risk of 'extinction'.

Individual student behaviour

Individualised behaviour management strategies should make clear to students what behaviours are unacceptable and also provide opportunities for modelling, rehearsing, and reinforcing behaviours that are acceptable (Rogers, 1994a, pp. 167–69). Behavioural methodology is a scientifically based technology, so the first requirement is a clear definition of the target behaviour. For instance, if a child is thought to be 'hyperactive', Merrett (1985) suggests that an operational definition of behaviours such as 'out of seat' will be required. Once the behaviour has been operationally defined, there should be systematic observational sampling across times of day, situations, nature of activity, person in charge, and so on. Such observations need to be taken over a period of about five days to establish the baseline level of responding. Once the baseline can be clearly seen, an analysis detailing the following three stages should be carried out:

> **A** – the antecedent event(s), that is, whatever starts off or prompts
> **B** – the behaviour, which is followed in turn by
> **C** – the consequence(s).

> (Merrett, 1985, p. 8)

Merrett advises that where a consequence of a behaviour 'is shown to be maintaining [the] behaviour at a high level then that consequence is, by definition, and regardless of its nature, reinforcing it positively'. Telling children off can temporarily choke off certain behaviours, but these may recur after a very short time. This can be 'very frustrating for the teacher'. However, it may be the teacher's scolding that is maintaining the child's behaviour. 'By definition "ticking off" is positively reinforcing the child's "attention-seeking" behaviour. If that positive reinforcement is removed, then the rate of occurrence of the behaviour will be reduced. It will eventually become extinguished' (Merrett, 1985, p. 9).

From a behaviourist perspective, then, and as Rogers (2013) notes, a child's background is no excuse for poor behaviour. Socially acceptable behaviour is learned and can, therefore, be taught. Key to motivating learners to choose appropriate behaviour are 'positive reinforcers': teacher praise, rewards of various sorts and positive communications with parents. If children disrupt the lesson they should take ownership of this and be given a reminder what the rules are: 'Jayson … you're calling out … Remember our class rules for asking questions, thanks' (Rogers, 2013, p. 238). In classrooms, younger children can be given a non-verbal cue to appropriate behaviour and shown clearly what is expected.

Adults' behaviour is very important in modelling and reinforcing specific ways of behaving in particular situations. In doing so, it is really important to not allow oneself to be drawn into a power struggle that some young people find rewarding and which is likely to reinforce the way they are behaving. However, students may imitate negative as well as positive behaviour, so, for example, the use of abusive or sarcastic language should be avoided at all costs. This might entail modelling ways of resolving conflict which respect the rights of students to learn and feel safe, and

- meet the needs of both parties, that is, provide win–win outcomes wherever possible;
- bring an end to the conflict, or at least reduce it;
- do not leave either party 'wounded'.

(Sproson, 2004, p. 319)

There are a number of techniques that enable teachers to avoid power struggles with students:

- Some young people may take pleasure in not doing what they are asked immediately, especially if there is an audience of peers. In this situation, Rogers (2013, p. 240) among others advocates that, in the classroom, teachers build in a brief 'take-up' period for pupils to respond: "'Craig … Deon … you're chatting – it's whole-class teaching time." Make the request, walk away so as to imply compliance, and acknowledge compliance when it happens'.
- The 'broken record' approach (Rogers, 2013) also allows teachers to repeat a request calmly without being drawn into an argument. For example, as Sproson (2004, p. 320) exemplifies:

TEACHER: John, start your work, thanks.
JOHN: It's boring.
TEACHER: John, start your work, thanks.
JOHN: Didn't you hear what I said?
TEACHER: Start your work, thanks.
JOHN: This lesson's just so boring … (picking pen up – if you're lucky!)
TEACHER: Pleased to see you getting down to work – well done.

- Learners bringing inappropriate objects into classrooms or engaging in inappropriate activities might be given what Rogers (2013, p. 242) calls 'directed choices'. As a newly appointed teacher, the current author's sister was once in a situation where teenage girls brought long sticks into her mathematics lesson in a class where every student had been suspended the previous term – to test her out, as they later admitted. She simply responded by directing their choices: 'Shall I put them in this cupboard or that one? I'll keep them safe for you till the end of the day'. They never asked for them back.

Group behaviour

One well-known framework for classroom management that has been based on behavioural principles is that of 'Assertive Discipline'

(Canter & Canter, 1992). 'Assertive teachers' communicate expectations to students clearly and confidently, and reinforce words with actions in order to 'manage' students' behaviour in schools. Canter and Canter (1992, p. 12) assert that students need to know 'without doubt' what teachers expect of them, what will happen if they choose not to comply, and that appropriate behaviour will be overtly reorganised. They also need to be taught 'how to choose responsible behavior' (1992, p. 13).

Canter and Canter (1992, p. 17) see a teacher's 'own negative expectations about her [or his] ability to deal with disruptive student behavior' as major factors preventing teachers from asserting themselves in the classroom. Key to successfully managing classroom behaviour, therefore, are teachers' positive expectations of their own ability to do this. Clear rules derived from a behaviourist approach enable teachers to do this. They advocate setting up a classroom discipline plan with three parts: rules, positive recognition, and consequences. Rules should be limited in number, focus on observable events, be applicable throughout the time period, apply to behaviour only, and may involve students in their compilation. Key to motivating students to choose appropriate behaviour are 'positive reinforcers', which include teacher praise, rewards of various sorts, and positive communications with parents. Teachers are exhorted to teach the classroom discipline plan. They are advised to 'explain why you have consequences', to 'teach the consequences', and 'immediately begin reinforcing students who follow the rules'. Rules should be reviewed frequently, at the start of the year and as needed later on. The discipline plan should be posted up in the classroom and sent home to parents (Canter & Canter, 1992, p. 115).

Canter and Canter recommend that teachers should take the time to 'identify the academic activities, routine procedures and special procedures for which [he or she needs to determine] specific directions' (1992, p. 123) at the beginning of every year. By 'specific directions' they mean 'identify the classroom situations for which specific directions are needed. Then determine those directions'. Subsequently, 'teach your specific directions immediately prior to the first time the activity takes place'. It is often also helpful to put posters and other illustrations around the classroom 'to help remind students of appropriate behavior during different activities and procedures' (Canter & Canter, 1992, p. 139).

After implementing the stated consequences of a rule-breaking misdemeanour, teachers should look for every opportunity to recognise, and thus 'shape', appropriate behaviour.

APPLICATIONS OF A BEHAVIOURIST APPROACH TO NEW LEARNING

In addition to classroom management, when devising programmes for learning new material, behavioural approaches have often been used in so-called 'task analysis' and 'precision teaching'.

Task analysis and precision teaching

There is an assumption in task analysis and precision teaching that the skills underpinning particular tasks or component elements of a new concept can be analysed into small precisely defined stages in a clear hierarchy of learning. Learners, especially those who experience cognitive difficulties, can be taught, and practise, each stage to mastery level. In brief, a learning sequence might be structured by first breaking down the new information into a series of small steps, then teaching this information separately and sequentially. Analysing how to wash one's own hands for a child who experiences significant learning difficulties might result in the following sequence, for example: turn on taps, make sure water is not too hot, place hands under running water, rub soap on hands, rub hands together and count to five, rub back of one hand, rub back of the other hand, rinse soap off hands, turn off water, pick up towel, dry hands, put towel down (adapted from Cooper et al., 2020). The difficulty level of the teacher's questioning during the teaching sessions has to be carefully graded so that success for the learner is assured. Following behaviourist principles of 'shaping' and rewarding desired behaviour, the learner receives immediate feedback and reinforcement of positive learning behaviour and the correctness of responses to the teacher's questions. Good performance in the lesson, in other words, the desired behaviour of effort and achievement, is reinforced by verbal praise, prizes, and good grades.

Thinking clearly about the next steps in learning can be very useful where a child experiences difficulties in conceptual understanding. Behaviourist approaches to learning in what we might call the basic skills can be extremely powerful in their effectiveness and can be

identified in many software programmes intended, for example, to encourage phonics knowledge, spelling, literacy learning, and basic numeracy programmes using the four rules of number, reinforcing the learning through repetitive drills and practice, with immediate feedback and rewards (reinforcers) for correct responses designed to provide reinforcement of learning.

COGNITIVE–BEHAVIOURAL APPROACHES

Other approaches have drawn in some ways from strict behaviourist models and moved towards alternative ways of understanding learning that take greater account of how individuals construct reality for themselves. Cognitive–behavioural approaches, for example, have emerged from behavioural psychology and have a number of additional key characteristics, one of which relates to a focus on the way the mind processes information rather like a computer. Cognitive–behavioural approaches can incorporate a wide range of cognitive processes, including the use of perception, language, problem solving, memory, decision-making, and imagery.

An example of the use of cognitive–behavioural approaches is cognitive behaviour therapy (CBT). This emphasises the role that thoughts play in relation to emotions and behaviours and avers that altering our thought processes can have an effect on changing our behaviour (Rae & Egan, 1999). The focus of CBT is on what is happening in the present to improve the individual's state of mind rather than on causes of upset in the past. Recent research suggests that CBT is effective in reducing children's psychological difficulties and problems. We discuss some of the applications of cognitive–behavioural approaches in Chapter 7 below, and the way in which young people might be supported to reconsider their negative assumptions and alter their self-perceptions to improve their emotional state.

CONSTRUCTIVIST APPROACHES

Rather different approaches to understanding learning and behaviour are the various forms of constructivism with a focus on ways in which individuals actively construct their understanding of the reality in which they live. There is a recognition here that 'the emotional and behavioural difficulties which people experience in their

lives are not caused directly by events but by the way they interpret and make sense of these events' (McLeod, 1998, pp. 71–72). How young people think of themselves in school has an enormous impact on their learning and behaviour. Pollard comments that some might be 'highly anxious and continually under-value themselves'. Some can seem 'over-confident and extremely resilient'. Some may know their own strengths and weaknesses while others 'may seem to have relatively naïve views of themselves. Children may be gregarious, or loners, or they may be lonely' (Pollard, 2002, pp. 97–98). Learning is highly dependent on both the context and what the learner makes of the situation in which s/he finds himself, and the interaction between them (Greeno, 1998; Lave & Wenger, 1998).

From this view, difficulties in learning and behaviour 'problems' in schools are also situated in the interaction between the context and the perceptions of students (Mehan, 1996; Lave & Wenger, 1998; McDermott, 1999). It is important therefore for adults to understand how children make sense of their own circumstances and what impression is conveyed to students of others' views of them. Adults in schools have to be concerned all the time with the sense that children are making of their worlds, their experiences, tasks in classrooms, and so on. Being open to this demands careful and sensitive listening, observation, and reflection. It appears obvious that taking the young person's view seriously is essential to any consideration of how we might reduce obstacles to students' learning (Hart, 1995). Learning programmes are likely to be more effective when students have some sense of ownership over them.

Children, like the rest of us, come to decisions about what learning is worth investing in. They judge whether the benefits of any given learning situation outweigh the time, effort, and (in some classrooms) the risk of being wrong and exposing themselves to public humiliation in being thought stupid. Questions of value-to-oneself are at the heart of the learning process. Young people may not make the effort if they do not perceive it as worthwhile in relation to the effort that is required. All learners are active, all learners think about their learning, all have views about it, and all have feelings about it, no matter what the context. All learners have some power and control. They may enthusiastically comply with the demands set for them or may outwardly comply but inwardly be resentful.

They may be uncooperative or disruptive and resist the demands made on them. For young people in schools, feeling that they have some control over their learning, understanding why they are learning something, choosing how to do it and when to do it, may be important. Allowing learners some degree of choice in, or power over, what they learn and how they learn invites them to take control over their learning. This is not always easy in busy classrooms. However, offering some choices that can be accommodated within the school day gives learners responsibility and acknowledges that they have preferences, dislikes, and ideas.

Importance of learner's voice

Arnold was a student about whom I had many concerns. Over the two years I worked with him in a comprehensive upper (13–18) school, his written work showed just how little progress he seemed to have made in literacy skills. He just did not seem to care. He came to school in a shirt that was always dirty. He smelled of body odour and nicotine. I never knew what Arnold was thinking. I never knew what he felt about his own lack of literacy. If we had known, it might have made a difference either to our approach or to the outcome educationally. Arnold left school functionally illiterate.

(Adapted from Wearmouth, 2009)

CONSTRUCTING UNDERSTANDING

A number of researchers have contributed to the way we often think about children's learning from a constructivist view. Two of the foremost theorists are Jean Piaget (1896–1980) and Lev Vygotsky (1896–1934). Other leading educationalists, for example, Jerome Bruner, have picked up and developed Vygotsky's ideas.

Jean Piaget

Jean Piaget, a Swiss psychologist, was one of the theorists who contributed a great deal to the thinking that children learn by doing.

From his work with his own children, Piaget (1954, 1964, 1969) concluded that there were four universal stages of learning:

- Sensorimotor (0–2 years). At this first stage, the child is born with a set of reflex movements and perceptual systems. Learning is, in general, through trial and error and there is quick development of direct knowledge of the world as the child relates physical actions to perceived results of those actions.
- Preoperational (2–7 years). At this stage, the child develops the ability to represent events and objects mentally, in other words, think in images and symbols[1] and engage in symbolic play, but is not yet able to see others' point of view, which is characteristic of 'egocentrism'.
- Concrete operational (7–11 years). At this stage, the child develops the ability to use logical thought or operations (rules) but can only apply logic to physical objects, hence the term **concrete** operational. The child also becomes less egocentric and begins to see things from the viewpoint of others. S/he starts to develop an understanding of conservation of number, area, volume, orientation, and reversibility, but is not yet able to think abstractly or hypothetically.
- Formal operational (11+ years). Finally, the child acquires the ability to use abstract reasoning and manipulate ideas in his/her head, without being dependent on concrete objects to, for example, combine and classify items, do mathematical calculations, think creatively, and imagine the outcome of particular actions.

There have been a number of criticisms of Piaget's work. For example, in basing his research on his own children he was using a skewed sample of the child population from which to draw his conclusions. He also appears to have underestimated children's abilities at different ages (Wood et al., 2001). In addition, there is insufficient consideration of different social or cultural contexts in which children in general live and grow. Further, some of the methods for the research on which these conclusions were based have been questioned (Donaldson, 1984). Also, Piaget's work implies that child development occurs in discrete stages, but actually, of course, it is uninterrupted with some stages continuing throughout adulthood.

Neuroscientific research confirms that sensory motor learning lays the foundation of cognition, hence, as Piaget theorised, the role of play in learning, the need for active repetition of first-hand experiences, and for practice and revisiting ideas in the development of concepts. However, such research also challenges Piaget's view of developmental stages in learning to think. As Goswami (2015, p. 1) comments:

> it is no longer widely believed that there are different developmental stages in learning to think.
>
> > (Piaget's theory, CACE, 1967, p. 50)

Goswami (2015, p. 9) goes on to note that sensory motor representations are not **replaced** by symbolic ones, as Piaget's staged theory holds but, rather, are 'augmented by knowledge gained through action, language, pretend play and teaching'.

> Similarly, it is not believed that a child cannot be taught until she/he is cognitively 'ready' (CACE, 1967, p. 75). Rather, it is important to assess how far a child can go under the guidance of a teacher (the 'zone of proximal development', Vygotsky, 1978). [See below for a discussion of the zone of proximal development.]
>
> > (Goswami, 2015, p. 1)

Nevertheless, despite the criticism, Piaget's conclusions that learners construct knowledge by interacting with their environment and that they reconstruct their thoughts in the light of new experiences have made a strong contribution to practice in early years settings and primary schools particularly, as they organise their classrooms with the children in mind and provide a rich learning environment with concrete materials and resources. As they grow older, learners construct deeper understandings of the things they experience. However, it is very important to stress here that students develop at different rates. Some take much longer than others. Some who experience difficulties in learning may never be able to manipulate abstract ideas in their heads. Differentiated learning tasks and the range of different resources that are required must be planned with this understanding in mind if all students' learning needs are to be met.

Lev Vygotsky

Akin to Piaget's model of constructivism but developed in a very different context, that of Soviet Russia, is the social constructivist model of Lev Vygotsky. As Vygotsky (1962), suggested, language is also important to the sense-making process in addition to a carefully organised rich learning environment. He concluded that it is through interacting with others, especially a more knowledgeable other, that learning mainly occurs and is developed. In this view of learning, the development of thinking, reflection, problem solving, reasoning, and so on – what Vygotsky called 'higher mental processes' – depends on the presence of 'mediators' of learning during interactions between the individual and the environment. This means that relationships among learners themselves and between learners and adults that are bound up with the learning environment are also important.

Important in this model is what is called the 'zone of proximal development' (ZPD). Effectively this 'zone' is the distance between what learners are not currently capable of doing on their own, and what they can do with support. It is, then, children's next potential steps in learning and the range of knowledge and skills that they are not yet ready to learn on their own but can learn with support from, and in interaction with, more informed and experienced others, for example, adults. A more informed/expert other may 'scaffold',[2] that is, provide structured support for, new learning (Wood et al., 1976) through the ZPD based on his/her knowledge of the learner and the learner's current level of knowledge and understanding of the topic. For the learner, learning in the ZPD is also about participating, for example, having the chance to behave as a reader and writer alongside other readers and writers. This issue is really important in relation to young people with difficulties in learning.

Obvious implications of this view of learning is that all learners, including those who experience difficulties, need

- space and time for discussion between themselves as learners and the more informed other(s), most often the teacher(s) and themselves as learners with peers to enable 'interthinking' (Littleton & Mercer, 2013), that is, focused talk around new learning to clarify and consolidate their understanding of new concepts and knowledge;

- time for reflecting on what they make of what they have just learnt and the opportunity to raise questions with the more informed other(s); and
- what we might call a 'safe' learning space for this process. In relation to young people with particular needs in education, it is absolutely essential that they, along with all other students, feel safe in talking about themselves as well as asking and answering questions and are not humiliated by the teachers or peers' reactions.

One important reason why Vygotsky's views have become popular in education circles in recent years is that they give a clear role for the teacher in the person of this more experienced, informed other.

The view of learning just described emphasises the social and cultural context of learning and the role that adults play in supporting that learning, and is often called 'social-constructivism' (the construction of knowledge in a social context), or referred to as taking a sociocultural perspective on learning. The ideas from this view of learning underpin much of the current work on formative assessment – 'assessment for learning' – that is discussed in Chapter 10 of this book.

Scaffolding learning

An idea that, as we noted above, has been developed from a sociocultural view is that of 'scaffolding' to support learning (Wood et al., 1976). Rogoff (1990) identifies six elements in scaffolding learning. First, engage the learners' interest in the task and then demonstrate how to do it. Next, if possible, reduce the number of steps needed for the task so learners can recognise their own progress. Then, control frustration and offer feedback so that learners can see their own progress. Simultaneously, find a way to motivate the learners so they continue with the task. Finally, and when the learner is ready, remove the scaffolding, but be prepared to reintroduce more if required.

To be successful, the interaction must be collaborative between student and the more knowledgeable other. The scaffolding must operate within the learner's zone of proximal development. The scaffolder must access the learner's current level of understanding and then work at slightly beyond that level, drawing the learner into new areas of learning. The scaffold should be withdrawn in stages as the learner becomes more competent. In schools, the final goal is for the

learner to become autonomous, secure enough in the knowledge required to complete the task.

Not all learning requires the physical presence of an adult. Learners need scaffolding from more knowledgeable others, but not too much. Learning is also about participating, for example, having the chance to behave as a reader, writer, and so on, alongside other readers and writers.

Learning is often highly charged with emotion. Feelings are very powerful in supporting, or preventing, learning. Feelings of success are often pleasant and/or exciting, but the sense of failure is often upsetting and/or disturbing, especially when it is a frequent occurrence (Wearmouth et al., 2005). This is often especially difficult in school where there is a tendency in most classrooms for the adults to talk too much and for the learners to talk too little. Other resources, apart from adults, can also scaffold learning: information technologies, peers, books, materials, pop music, and so on. Getting the balance right is crucial. Without active participation and construction of the self as a contributing member of the classroom, students are not included. They fail to learn properly and are likely to be marginalised.

Jerome Bruner

Bruner (1966) outlines three ways in which human beings represent reality to themselves in their own thinking as they develop their conceptual understanding of the world. He called these 'modes of representation'. These 'modes', like Piaget's model above, move from the concrete 'learn by doing' to the abstract:

- the first, 'enactive', mode of representation works through action. We 'do' and then we understand and know. In their very early years, young children rely on enactive modes to learn. As they learn to move, they learn to do so through their own actions without the need for verbal and/or written and/or physical symbols. Children unable to experience their world by sight, hearing, taste, touch, or smell, or unable to move easily, will be less able to understand and know through 'doing' unless special efforts are made to enable them to access their world otherwise;
- the second, 'iconic', mode is a visual representation of the real object. Images therefore stand for the physical object. Using this

mode of representation, children learn to understand what pictures and diagrams are and how to do mathematical calculations using numbers and without counting objects;

- the third, 'symbolic', mode is an abstract representation of something else. Abstract symbols are 'arbitrary' meaning that they do not necessarily bear any resemblance to whatever it is that they represent. For example, commonly in spoken language, the sound of a word bears no resemblance to reality, unless it is onomatopoeic.

This model views children's learning as becoming proficient in each of these increasingly more complex modes, but they may experience difficulty at any point in their development. It is crucial to note here that a common feature in children who experience cognitive difficulties is weakness in understanding and remembering that a symbol can 'stand for' something else, for example, something concrete or an action. As discussed in Chapter 6, teachers may well need to build in strategies to classroom teaching that facilitates access to the curriculum in ways that address these difficulties, for example, much more time to acquire concepts through experience of using and manipulating concrete objects.

DEVELOPMENT OF CONCEPTUAL UNDERSTANDINGS AND THE ROLE OF LANGUAGE

Human conceptual development begins very early in life. As Goswami (2015, p. 4) comments:

> All forms of learning important for human cognition are [...] present in rudimentary form soon after birth. Statistical learning, learning by imitation, learning by analogy and causal learning underpin cognitive development. Developmental cognitive neuroscience is revealing how powerful these learning mechanisms are, for example, in rapid learning about social stimuli (like faces, Farroni et al., 2002), physical events (like grasping actions, Tai et al., 2004), and language.
>
> (Dehaene-Lambertz et al., 2006)

The human brain consists of neurons or nerve cells which transmit and process the information received from our senses. This results in

the creation of a complex neural network of neurons in the human brain. Newly born human brains comprise billion of cells, most of which will be connected as a result of experiences after birth. The individual child's brain responds to those experiences and makes sense of its own world, thus developing conceptual understanding.

Concepts are internalised, abstract representations of objects, ideas, and events that enable us to place things into categories. With enough experience in practice, children develop an understanding of number-ness, or round-ness, or what constitutes a book, or food, and so on. If children cannot categorise what they see, hear, touch, taste, and feel they would be overwhelmed by the input of information. So, for example,

> on first encountering a soft ball that is attached to her buggy or cot side and hearing it referred to as a 'ball' a network of neurons is activated in the child's brain in many areas. The child will begin to connect the word with the object through her perceptual knowledge of the roundness of the ball and the sound of the word consistently attached to it by adults. As her experiences of balls grows [...] she will be able to recognise it as a ball because of the perceptual qualities of the ball – its roundness; its causal structure, or how it behaves. For example, most balls roll. In Piagetian terms the child will go through a process of assimilation and accommodation as they make sense of and refine their knowledge of the world.
>
> (Wearmouth et al., 2018, p. 48)

The ability to categorise objects, ideas, and events is essential for developing memory, thinking, and predicting how things will behave. This is clearly important as young children have an increasing number of experiences of the world around them. However the development of the skill of categorisation is problematic for some young children.

Goswami (2015, p. 4) explains that neural studies show that a child's and adult's brains have essentially the same structures, that is networks and pathways, which perform the same functions using the same mechanisms:

> [...] cognitive development is largely a matter of neural enrichment. The learning environments of home, school and the wider culture enable experience-dependent learning, and lay the basis for the cognitive and emotional functioning of the adult system.

Goswami (2015) argues that the combination of the richness and frequency of experiences and the quality of the learning environment is crucial for children's learning. We might argue from this that multisensory approaches to children's learning in the early years is really important for supporting the development of neural networks across multiple areas of the brain. Enabling experiences that strengthen neural pathways can support those children with perceived gaps in their learning.

UNDERSTANDING DIFFICULTIES IN LEARNING

We can only make sense of new ideas and information in terms of what we already know. It is hard to learn unless what we are reading about, listening to, or looking at makes sense to us. If we think about reading a novel – or children reading a story book – without a way of relating to the words and the ideas in a passage, we are not likely to be interested in it. Children can make sense of new ideas only by relating them to what they already know.

As noted above, it is obvious that some young people will take much longer than others to acquire the ability to use abstract reasoning and manipulate abstract ideas without the need for concrete objects to support their thinking. Some may never acquire this ability. Teachers need to know their students very well in this regard in order to plan differentiated activities and scaffold the learning of all their students. Teachers and other adults in schools are responsible for finding ways to support learners to make connections with what they already know. One straightforward way to do this is to talk with learners of any age about what they do or do not know and encourage them not to be embarrassed to discuss difficulties they might be experiencing. Young people have a right to be heard (Council of Europe, 1966). At the same time, listening to what they say is an important part of the process of supporting learning. Misconceptions may be very common and not noticed unless we listen to the learner. Many students in schools experience difficulties in learning in the area of mathematics. 'Karen', aged 14, repeatedly made subtraction errors of the following kind:

	9	8	4	2
−	1	5	5	7
	8	3	1	5

She thought that the subtraction rule was always to subtract the smaller from the larger figure, whether the figure appeared in the upper or lower line. She had made the same mistake for years and had never understood why her mathematical attainment was so poor until, one day, she was asked to do a 'think–aloud' in the classroom. The challenge for those with an interest in mathematics education is to understand how to break this pattern. Those teachers who are effective in teaching mathematics to the whole range of student learners are those who take very seriously, and are committed to, developing students' mathematical thinking (Anthony & Walshaw, 2007, p. 1). This commitment is characterised by a number of principles, among which are a recognition that all students can become mathematical learners and a 'commitment to maximise access to mathematics'. Other factors are also important: good mathematical knowledge, relationships of student to student and teacher to student, the 'connectedness of both people and ideas', 'interpersonal respect and sensitivity', and 'fairness and consistency'.

Teachers' beliefs, expectations, and understandings of all students as active agents in their own learning are as important in the area of mathematics as in any other area of the school curriculum. Effective teachers neither embarrass students nor ignore wrong answers. They use mistakes to enhance the teaching. There is now a large body of evidence that demonstrates the beneficial effects of students being encouraged to articulate their mathematical thinking (Lampert, 1990; O'Connor, 1998; Fraivillig et al., 1999). By expressing their ideas, students provide their teachers with information about what they know and what they need to learn. Hiebert et al. (1997) have found that teacher talk that is effective in supporting mathematical understanding and competence has the capacity of scaffolding learning through the zone of proximal development. It involves drawing out the specific mathematical ideas that students are using to work out the answers to problems, supporting their understanding of the accepted conventions in mathematics, and sharing other methods and ways of working through mathematical problems.

Effective mathematics teachers often listen to what students have to say and reframe student talk in mathematically appropriate language. This provides teachers with the chance to highlight connections between mathematical language and conceptual understanding. Many students who experience difficulty in mathematics lack the

confidence to speak out in the classroom, however. The current author, who at one time was employed to teach Latin to university level and also run the learning support department in a secondary school, well remembers the occasion when teaching mathematics to a bottom set of 14-year-old students, she was asked by one boy: 'ere, Miss, why do you bother with us when you can teach them clever kids Latin?' As noted already, for students to be prepared to volunteer their answers in mathematics lessons they need to feel safe and know that they will not be humiliated by either the teacher or their peers if they are wrong. The first step for the teacher in all this is probably to ensure this sense of safety for all the students in the classroom.

As a secondary teacher, the author frequently noticed a number of students who experienced difficulties in literacy acquisition and expression, using capital 'bs' and 'ds' in the middle of words, for example, 'aBle'; 'saiD'. For a long time, she simply corrected these errors. However, when they persisted for a very long time, she asked the students to write the words and talk through what they were doing. They all said that they knew the difference between 'B' and 'D' in upper case but could not remember them in lower case. When she looked to see how they were writing these letters they made little difference in their motor movement between lower case 'bs' and 'ds', starting them both at the top and running down to the curve, left or right, at the bottom. It is no wonder that they could not remember the difference. They tried to show that they knew the correct spellings by using upper case letters, which they could clearly distinguish.

What these examples illustrate is how learners try to make sense of a new experience or a new problem by trying to fit them to similar experiences of problems they have encountered before. If there is a good fit, then it is more likely that the learner will understand the current experience or solve the problem correctly. If the gap between the existing knowledge or experience and what is needed to understand the current problem or experience is too large, however, this is unlikely to happen.

Karen (see above) had continued to make the same subtraction errors because, as she later explained, she was 'useless' at mathematics and was too embarrassed to explain her reasoning. I had simply never thought to ask the boys why they used upper case letters in the middle of words because it did not occur to me that they might have chosen to do this deliberately. Concentrating only on the right

answer can mean losing the chance to gain insights into learners' understandings and misunderstandings and, therefore, the opportunities to support learning at the right moment.

AN ECO-SYSTEMIC POSITION

The final frame of reference in relation to learning and behaviour that is taken from psychology and discussed here is the view that the behaviour and learning of individuals can be viewed as part of an ecosystem. The school and the home are seen as being two separate systems with their own individual ways of operating.

Seminal to understanding an eco-systemic approach to conceptualising the development of children and young people who experience special educational, or additional learning or support, needs is the work of Bronfenbrenner (1979, 1986, 2005). Bronfenbrenner proposed eco-systemic theory in *The Ecology of Human Development* (1979) in which he described the ecological environment of the developing child as 'a nested arrangement of structures, each contained within the next' (p. 22), which must be examined as a whole to fully understand the forces surrounding individuals. He initially identified four such systems – the microsystem, mesosystem, exosystem, and macrosystem – that are nested around a focal individual like a set of concentric circles or, as Bronfenbrenner suggested, a set of Russian dolls.

As Neal and Neal (2013) note, in relation to children and young people,

- at the lowest level a microsystem is a setting where the individual plays a direct role, has direct experiences, and has direct social interactions with others, in other words, the immediate context: school, classroom, home, or neighbourhood. The family, for example, is a microsystem where the child plays the role of son/daughter, sibling, grandchild, has direct experiences, and has direct social interactions with others;
- a mesosystem includes social interactions between two of a young person's settings, for example, a meeting between a family member and teacher about a child's classroom behaviour;
- an exosystem includes settings, for example, education policy, that influence the young person but where s/he does not directly participate. For example, educational policies written to comply

with acts associated with special educational, or additional learn-
ing or support, needs influence the child's classroom and school
experiences;

- a macrosystem includes broad cultural influences or ideologies
  with consequences for the individual child or young person. For
  instance, we might consider societal views that emphasise teacher
  accountability and standardised test scores that have implications
  for how children experience schooling.

In addition to the four core systems, Bronfenbrenner (1986) later
introduced the 'chronosystem', a system reflecting change or conti-
nuity across time, for example, transitions between school sectors at
various ages and stages that influence each of the other systems.

Understanding learning and behaviour needs through an eco-systemic lens

It can be illuminating to analyse difficulties in learning and
behaviour through an eco-systemic lens in order to iden-
tify the nub of a problem and work out potential solutions.
For example, using this lens to understand an individual
student's behaviour and learning problems in school may
well mean focusing on dysfunctions in the family system,
in the school system, or in the family–school relationship
system (Campion, 1985; Dowling & Osbourne, 1985) – or,
indeed, in the exo- or macrosystems where education policy
or societal values may be counter to the interests of feelings
of self-worth of young people who experience difficulties of
various sorts. Cooper and Upton (1991) describe the case
of 11-year-old John, a student at a special school for stu-
dents identified as experiencing emotional and behavioural
difficulties. At home he reported he was bullied by staff
at school, but never complained about this at school. His
complaints to his mother meant that she was repeatedly
involved in his school life where she acted as his advocate
and he elicited protective behaviour from her. Her protec-
tion in the school situation was in contrast to the role she

played at home, where she slept most of the day because she worked in a club at night. 'If the suggestion of bullying by staff was eliminated, it is likely that John would find some other way to elicit positive behaviour towards himself by his mother' (Cooper & Upton, 1991, p. 24). From an eco-systemic approach, there would be an analysis of the system operating in John's home and the roles played by the various members to explain both John and his mother's repeated behaviours. There would also be an analysis of the roles played by the various members of staff at school in relation to the home situation. An appropriate intervention would need to aim to involve John and his mother in a collaborative relationship usually organised by a consultant family therapist.

Such consultations may result in the adjustment of systemic structure, in the form of an adjustment in the roles performed by members of one or other of the systems involved, or in the adjustment of systemic boundaries, whereby weakened boundaries are strengthened, or overly strong boundaries are relaxed (Minuchin, 1974).

In the situation of John and his mother, perhaps the home-based relationship between them was lacking in warmth, 'to the extent that John has to engineer the type of situation described above, in which his mother plays a protective role'. A possible solution for this might be actively to look for a situation where John's mother takes a protective role. 'The precise nature of this remedy would be dependent upon the outcome of meetings between the family and the therapist' (Cooper & Upton, 1991, p. 24).

SUMMARY

How we understand learning and what lies at the root of a 'learning difficulty' in school has a very strong influence on how we respond. Over the years, different social or psychological understandings have given rise to different interventions. Research confirms that strategies recommended for particular special educational needs are useful

for most students. Lewis and Norwich (2000), for example, point out that there is little evidence that staff should use entirely different teaching approaches for most students with SEND. Instead, they suggest that staff should give these students more time to solve problems, more chances to practise their skills, more examples to learn from, and more experience of using knowledge and skills in different situations. They should also provide more strategies to assist them to learn information and skills, more preparation for the next stage of their learning, and more frequent assessment of what is and what is not being learned and why.

There is no golden formula for addressing the special learning needs of all students who experience difficulties in schools. There are some general principles, however. Every student is different and every situation is different. Addressing difficulties is a question of problem solving. First, find out about the learner, his/her strengths, interests, and the difficulties s/he experiences. Then think about the requirements of the particular curriculum area and barriers to learning in the classroom environment and in the particular curriculum area. Finally, reflect on and implement what will best address those barriers to help the learner achieve in the classroom. As we discuss in Chapter 10 below, this, in general terms, is the approach adopted by the 'assess → plan → do → review' cycle outlined in the *Special Educational Needs and Disability Code of Practice: 0 to 25 Years* (DfE, 2015, §6.17) in England.

The extent to which children qualify under the legal definition as children 'with special educational needs and/or disabilities' or as requiring 'additional' support depends to a large extent on the policies and resources within their Local Authorities (LAs) and educational settings as well as the wording of particular Education Acts in the different countries of the UK. In the next chapter, we will look at ways to understand and address needs in communication and interaction.

NOTES

1 This is known as the 'semiotic' function.
2 It is important to note that Vygotsky himself never used the term 'scaffolding'.

UNDERSTANDING AND ADDRESSING NEEDS IN COMMUNICATION AND INTERACTION

INTRODUCTION

The chapter will focus on communication and interaction, the first of the four broad areas of need outlined in the *Additional Learning Needs Code for Wales* (NAW, 2021, §2.34) and the *SEN and Disability Code of Practice 0 to 25 Years* (DfE/DoH, 2015, §5.32) in England. In the draft Code, Section 3 (DENI, 2021, https://www.education-ni.gov. uk/sites/default/files/consultations/education/The%20draft%20 Code%20-%20Section%203%20-%20Identification%2C%20 Assessment%20and%20Provision%20by%20Schools.PDF – accessed 07.01.22) in Northern Ireland 'speech, language and communication needs' are categorised in a way that is broadly similar. Young people's experience of 'language and communication difficulties' is also acknowledged in the Code in Scotland as potentially requiring the 'use of specialist learning and teaching approaches' (Scottish Government, 2017, §77, p. 53).

There is an obvious overlap between descriptions of needs in communication and interaction and another of the broad areas of need: cognition and learning. Statutory advice in the current Code in England (DfE/DoH, 2015, §5.33) clearly acknowledges that individual needs may not be confined to one area but can span them.

One implication of this may be that conceptualising four areas of need is an administrative convenience.

The Department for Education (DfE) carries out an annual school census in January and compiles data relating to the incidence of SEND in its schools in England in its publication *Statistical first release (SFR). Special educational needs in England*. The SFR for January, 2021 (https://explore-education-statistics.service.gov.uk/find-statistics/special-educational-needs-in-england – accessed 07.01.22), indicates that the most common type of need identified for those with an EHC plan in state-funded primary, secondary, and special schools is what is termed 'autistic spectrum disorder' and, for those with SEN support, speech, language, and communication. In the current chapter, we give particular attention to these areas and discuss.

- what research studies can tell us about these needs;
- how such needs relate to learning; and
- ways that the needs that are identified can be addressed through attention to the learning environment, curriculum, and teaching approaches.

Issues related to permanent sensory impairment that may be implicated in difficulties in communicating and interacting with others will be discussed in Chapter 8.

COMMUNICATION AND LANGUAGE NEEDS

The Royal College of Speech and Language Therapists (n/d) notes that the term speech, language, and communication needs (SLCN) refers to difficulties across one or more aspects of communication, for example: problems with accurate production of speech sounds including stammering, problems understanding and using language to interact with others in ways that involve facility with non-verbal rules of reciprocal communication, and the manner in which language is used in different ways for questions, descriptions, etc.

Of those learners identified as receiving SEN support in schools in England in 2021, a high proportion, 24.5[1] per cent, have speech, language, and communications needs (DfE, 2021b). This was the most prevalent primary type of need among boys with 26 per cent

of those who received SEN support compared with 21 per cent of girls.

If we accept the views of Vygotsky (1962, p. 51) that 'thought development is determined by language', the implication is that we should view speaking and listening as fundamental intellectual and social skills that shape how we think. A young child's thought development begins through, and is supported by, interaction with others. As Dockrell and Howell (2016) found in their research, literacy difficulties are reported to be more common among children with language difficulties whilst levels of bullying and anxiety were reported to be higher in children with speech problems. It is very important, therefore, to recognise and respond to difficulties in this area for the sake of a young person's learning as well as for his/her well-being. As discussed later in this chapter, this is a crucial consideration for autistic learners for whom language facility and interaction with others is problematic (Williams et al., 2008).

Communication is vital in everyday life. It allows us to build and sustain relationships, to share experiences, to express our thoughts and feelings and understand those of others, and to learn. As the National Deaf Children's Society (NDCS) states (2015a, p. 8), there is a close link between language and communication. However, they are not synonymous. Language is 'the words (vocabulary), phrases, grammar and expressions we use and how we organise them to communicate'. Language competence can be seen as both receptive (that is, comprehending what is said and/or written) or expressive (that is, putting thoughts coherently into words, verbal or written).

Most language and other learning is acquired in the early years. During their first year of life, babies usually acquire much receptive language. By the age of one, children can often understand quite a lot of what is said. Even so, they are less able to express themselves verbally. By the age of 18–23 months, babies can usually understand short phrases, and express verbal meaning in a simple way by linking words together, for example, 'mummy gone'. By the end of year three, children can usually understand simple sentences and a wider range of word types, and begin to use grammatical markers, for example, plurals, in their speech. By four years of age they are learning irregular grammar, for example, past tenses of verbs, and developing an understanding of the way sounds function[2] within the language.

'Communication is really more the means by which we convey language, both to get our meaning across and to understand the meaning of others'. Communication is crucial for social and emotional development. It involves not only language, but also 'other things like eye contact, gesture, tone of voice, facial expressions and body language' (NDCS, 2015a, p. 8). Difficulties in this area may be associated with a number of barriers to learning, for example, speech and language delay, receptive or expressive language impairments, and specific or pragmatic language impairment.

Before examining these barriers, we look first at the needs of those for whom English is an additional language.

ENGLISH AS AN ADDITIONAL LANGUAGE

Of the total number of young people identified as having SEN in England in January 2021, *SFR* figures (DfE, 2021b) indicate that around 15.5 per cent have a first language that is believed to be other than English.

The identification and assessment of the special educational, or additional learning, or support needs of young people whose first language is not English requires particular care or additional support, as the various Codes of Practice across the United Kingdom note. The 2015 Code in England (§5:30), for example, advises that 'difficulties related solely to learning English as an additional language' do not constitute a special educational need and, further, that:

> practitioners should look carefully at all aspects of a child's learning and development to establish whether any delay is related to learning English as an additional language or if it arises from SEN or disability.

The Code for Wales (NAW, 2021, §2.29) acknowledges that

> Those with Welsh or English as an additional language might need extra support to achieve their potential, but do not necessarily have ALN. That said, when a child or young person has Welsh or English as an additional language and makes slow progress (despite differentiated teaching to support them), consideration ought to be given to whether there is a wider issue.

The 2011 Code in Scotland (p. 11) recognises that 'children or young people may require additional support for a variety of reasons and may include those who … have English as an additional language'. However, it cautions that it should not 'be assumed that inclusion in the list inevitably implies that additional support will be necessary'. These Codes clearly recognise that lack of competence in English (or Welsh) cannot be equated with general difficulties in learning, or particular difficulties in language acquisition, as understood in this Code. Students learning English (or Welsh) may say little or nothing for some time but are nevertheless learning. It is quite common for children entering school with little or no English to exhibit a 'silent' period of up to six months. It may well take about two years in an English language environment to become fluent in informal day-to-day 'playground English, and about seven years for classroom English'. It is clearly important to acknowledge this when considering whether or not a child for whom English is an additional language experiences a difficulty in learning that is serious enough to be called a special need.

Importance of culturally responsive teaching

In recent years, it has become increasingly obvious that to enable students in schools from an increasingly diverse range of cultural backgrounds to learn and achieve academically, it is important to adopt pedagogy that is responsive to, and respectful of, them as culturally situated. There is no possibility of making sense of what bears no relation to one's own ways of making sense of things. Unfamiliarity with local culture, customs, and language on entering school can result in complete bewilderment and an inability to understand the expectations and norms of the literacy curriculum. Gregory (1996a, p. 33) notes, for example, how 'Tony' arrived at school, aged four years and ten months, with an 'eye for detail' and a 'disciplined and structured approach to reading from his Chinese school'. In his Chinese school, he had been 'given an exercise book where he had to divide the page into columns and practise ideographs over and over

again until they are perfect' (p. 32). The carefully and clearly delineated and constrained tasks set by the previous teacher contrasted sharply with the range of personal choice given to 'Tony' and his classmates in the mainstream classroom in Northampton, England. His aimless wandering around the classroom while peers chose activities for themselves indicated that he appeared unable to cope with the non-realisation of his expectations about what school should be about.

In the social environment in which young people are reared, there are 'differences and similarities in communities' practices and traditions', including different 'configurations of routine ways of doing things in any community's approach to living' (Rogoff, 2003, p. 3). It is obvious, therefore, that when the home cultures of students in any one school vary widely the tools and frames of reference they acquire outside the school for their learning may well also vary to a significant degree.

There are very important reasons why pedagogy in schools should be responsive to the cultural backgrounds of students.

- Children learn to speak, think, read, and write within their own cultural contexts. Their frames of reference for doing these things come from these contexts. Teachers need to create a means to mediate students' own cultural contexts and the school cultural context (Wearmouth et al., 2011).
- Learning and its context are not independent of each other. The acts of learning, for example, reading and writing, have meaning within a context. Teachers need to create the safe spaces in which these acts can be understood (Sleeter, 2011; Wearmouth, 2017).
- It is important to facilitate students' sense of personal agency – 'I can do' – in learning and achievement, as well as the opportunity for participation and interacting through talk in learning activities alongside others who

are more skilled (Littleton & Mercer, 2013). This may well include siblings and/or parents and families. In brief, learning involves transactions within culturally structured social and natural environments of which students are a part (Wearmouth et al., 2011).

In order that all students from increasingly diverse cultural backgrounds make progress in their literacy learning, it is essential that schools 'teach to and through the strengths' (Gay, 2010, p. 31) of their students by 'using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them'.

Unfamiliar language or expectations may not be the only reason that students who learn English as an additional language make slow progress. They may also experience general cognitive difficulties. This may be a very sensitive area that requires specialist help. If cognitively demanding tasks can be accomplished by providing support in context the needs may well be linguistic; if not, they may be educational. Standardised tests in English are often culturally or linguistically biased so it is important always to try to obtain a first language assessment. We discuss the issue of assessment of children for whom English is an additional language in Chapter 10 below.

Useful free online resources

The organisation EAL Children was established in 2017 as a network of language researchers and teachers working in the area of English as an additional language. Its web pages, available at https://ealchildren.org/teachers/useful-resources-online/ host a (searchable) gateway to teaching resources available online through websites that are recent,

free, and offer advice and downloadable teaching resources that are suitable for learners from various language backgrounds and ages. Also included in the EAL Children's web pages are downloadable research reports and links to relevant associations.

STUDENTS WITH LANGUAGE IMPAIRMENT

Among the difficulties experienced by students in the area of language are speech and language delay, where acquisition follows the usual or expected pattern but at a slower rate; receptive or expressive language impairments (the first being less obvious than the second); and specific or pragmatic language impairment, formerly known as 'semantic pragmatic disorder' that will require specialist assessment.

SPEECH AND LANGUAGE DELAY

Substantial numbers of children start school with delayed speech and language. This may well mean that they experience difficulties in understanding verbal information, acquiring new vocabulary – both everyday and subject-specific – understanding, and using grammar, for example, verb tenses, correctly, sequencing ideas into a logical order, understanding social rules, for example, taking turn in conversations, remembering verbal information, following instructions, and articulating thoughts.

RECEPTIVE AND EXPRESSIVE LANGUAGE IMPAIRMENTS

Difficulties in language acquisition may lie at the receptive (comprehending what is said and/or written) and/or expressive (putting thoughts coherently into words, verbal or written) level. The degree of difficulty that is experienced may be at a mild or more severe level.

Addressing difficulties in receptive language

Learners who experience difficulty in understanding spoken language might learn effectively from teachers who understand that we

all learn by doing first. What the Primary National Strategy (PNS) (2005, ref 1235/2005) suggested nearly 15 years ago remains just as pertinent these days as it was then: whenever possible, students should have direct experience of a concept before it is used. Some students need time to formulate a reply to a question, so it might be appropriate to forewarn some students that they will be asked a question. Some students also benefit from being prepared for transitions between different activities and different parts of the classroom and school by, for example, having visual timetables and schedules and being told when and to where they are going to move during the school day. Children often get the gist of what is meant from non-verbal clues, so it is important to not always speak in terms that are immediately understood by students otherwise their language will never develop. It is important to ensure that students realise when they are being spoken to and when they are being asked a question. They may need to be taught the skills of whole-class listening.

To ensure that all students understand what is said, including those with difficulties in receptive language, as Wearmouth (2009) notes, teachers should check that they speak calmly and evenly, and their faces are clearly visible. They might use visual aids related to the topics being discussed and explain something several different ways if they have not been understood the first time. They might also make a point of repeating what students say in discussion or Q&A sessions.

Strategies for developing attention, listening, and language skills

Hayden and Jordan (2015) have some very useful suggestions about positive ways to develop attention and listening skills, and language skills more generally. Among these are that teachers should:

- ensure that students are attending before giving instructions that should be clear, short, and given in the same order as the required actions;
- pause when talking to give students time to think about what has been said and then give time to respond;

- identify and explain new vocabulary, using visual cues if appropriate, and find opportunities to use this new vocabulary in different contexts. Display the visual cues on classroom walls where applicable;
- link abstract words to known concrete words;
- explain non-literal expressions such as 'It's raining cats and dogs', or re-word to avoid idioms;
- ask students to repeat what has been said and/or check understanding by asking them what they have just been asked to do;
- verbalise what students are doing as they are doing it;
- arrange seating so that eye contact and concentration can be maintained;
- prepare visual timetables to enable students to remember what will happen during the school day, develop concepts of time, and reduce anxiety levels;
- consider using devices for recording information so that students can listen back and remember it;
- amend incorrect grammar by modelling the correct form;
- encourage elaboration of sentences by repeating what the student has said and adding a small extension, for example, an extra adjective; and
- where students are too shy to speak, consider using puppets to talk for them so that, eventually, the student's puppet talks to the peer's or adult's puppet.

EXPRESSIVE LANGUAGE

Students who experience difficulty in expressing themselves need frequent opportunities for exploratory talk in every area of the curriculum in order to put new information and ideas into their own words and link subject matter to what they already know. Below, we outline ways to promote oral language through activities that take account of the individual language and communication needs of learners, many of which can be incorporated into activities that involve the whole class. We then turn to storytelling in the context of language acquisition and, briefly, issues of supporting writing skills before turning to more serious language learning needs.

In-class activities to promote expressive language

As a number of researchers, for example, Norwich (2007), and Davis and Florian (2004) have commented, strategies designed to address the learning needs of children who experience difficulties are often effective in supporting the learning of their peers.

Encouraging expressive language

A consideration of ways to encourage children's oral skills, and depending on the age and level of their language acquisition, the curriculum area, and the language level of peers, expressive language skills may be extended in and out of the classroom through incorporating a number of approaches in whole-class and group activities, and/or activities out of the classroom and/or at home. For example, at an early stage of language acquisition:

- making verbal language relate to simple concrete concepts about what children can see, touch, hear, and smell around them;
- modelling clear articulation of words, but respecting differences in pronunciation;
- focusing on acquisition of vocabulary which is useful across many activities;
- encouraging single word and short phrases to express what to do;
- creating opportunities for children to communicate by giving choices that affect what happens as a consequence;
- asking for responses about straightforward features, for example, 'Which one of these is different?'
- modelling simple questions, such as who, what, and where, and relate responses to categories of people, objects/things, and places;
- using simple questions and forced alternatives to support learning rather than to test knowledge;
- including opportunities for child-led play with an adult to mirror and develop the learner's language;

- modelling correct grammatical forms of the language;
- giving a running commentary on what is happening;
- rehearsing verbal contributions to be made in class;
- helping children to clarify their thinking by encouraging them to give directions to others;
- encouraging children to speak if they do not understand, demonstrate how to do this, and ensuring that there is a supportive environment around them.

At a later stage, strategies that facilitate oral language development might include exploratory talk in small groups, problem solving aloud, explanations of how something is made, or how and why things happen, dramatisation and role-play, interviews (live or taped), and group discussion.

Storytelling to develop oral skills

Talking is an essential intellectual and social skill that is shaped by how we think and forms part of how we communicate with others and make sense of the world. The young child's thought development begins through interpersonal negotiation with others, caregivers, teachers, and peers at school and this is internalised into personal understanding (Vygotsky, 1962). It is clearly very important, therefore, to build up students' oral language skills. One very effective way to achieve this is by supporting them to talk about what they have been reading and about how what they have been reading connects with what they already know. Teachers might, for example, support the development of creative storytelling and writing by providing a choice of pictures and words within an overall narrative framework, encourage the child to build a personalised dictionary and vocabulary list, make vocabulary links with other curriculum areas, and encourage children to reflect words within words, familiar phrases, use of metaphor, and so on.

Like the rest of us, however, children will only want to read a text if they can understand what it is that they are reading. To do this they need prior knowledge and experience. Low performance on tests of reading comprehension can also reflect students' limited vocabulary,

and/or limited experience in talking about characters and events within stories or concepts of various kinds, and relating these to their own knowledge and experience. The potential of a meaningful 'talk to expand literacy' approach that goes beyond studying letters and words has been supported by a number of research studies.

From the time a child first begins to understand the world s/he appears to do so by means of story. 'Any understanding we have of reality is in terms of our stories and our story-creating possibilities' (Mair, 1988, p. 128). Sarbin (1986) notes that it is through story that children learn to become functioning members of the society into which they are born:

> It is through hearing stories ... that children learn or mislearn both what a child and what a parent is, what the cast of characters may be in the drama into which they have been born and what the ways of the world are.

There is no way to enable children to understand society 'except through the stock of stories which constitute its initial dramatic resources'. If children are deprived of stories 'you leave them unscripted, anxious stutterers in their actions as in their words' (Sarbin, 1986, p. 201). Orally told stories, rhymes, songs, prayers, and routines for meeting and greeting people, all have an important role in literacy acquisition and are promoted within many cultures long before children begin any form of formal education. Gregory (1996a, p. 112) advocates addressing the issue of building from the known into new literacy acquisition by explicit scaffolding of children's learning through 'recognising children's existing linguistic skills and cultural knowledge' and then deliberately 'building these into both teaching content and teaching strategies'. She describes a reading session that draws on children's oral language and makes use of puppets to mediate learning. This should draw on the child's emotions, for example, fear, love, sympathy, hate, and aim to tell an adventure or drama. Well-chosen stories told in the classroom by the teacher can scaffold children's learning about written texts in a way that conversation cannot. Chapters for reading should include 'memorable stories and texts from all times and places', perhaps containing 'universal truths, values and morals, fear and security' that

relate to students of all levels and ages (Gregory, 1996a, p. 122). Ways in which beginning readers might be introduced to story–reading sessions include the following: explicitly discussing the context for the story, one or more of the characters, and the plot; reading the story slowly, clearly, with 'lively intonation' and without interruption; and discussing the story and the themes, as well as relating these to the children's lives.

Investigating freely available resources to support speech and language needs

Chatterpack (2020) has collated a range of very useful interventions that have been designed to address the needs of learners who experience communication and interaction needs on its website: 'FREE Speech and language, OT, and many other SEND resources for families and schools'.[3] These materials include speech sound, language, and speech and language activities for use by both schools and families.

ICAN – https://ican.org.uk/ – is a charity that aims to support children and young people's speaking and understanding needs. Its website hosts What Works, an online searchable database of evidence-based interventions for children and young people with speech, language, and communication needs. Access to the database is free.

Strategies to support writing

Learners who experience problems expressing themselves in writing often benefit from structured support to help them develop skills for different types of writing. Allowing a student to dictate text onto an audio recorder and then transcribing it for him/her will help him/her to get thoughts and ideas down on paper. Alternatively, the student could be allowed to dictate text while the teacher/older student/parent scribes. We consider approaches to support writing in much greater detail in Chapter 9.

PRAGMATIC LANGUAGE IMPAIRMENT (FORMERLY 'SEMANTIC PRAGMATIC DISORDER')

Young people experiencing pragmatic language impairment (PLI), previously called 'semantic pragmatic disorder', have special challenges with the pragmatics of language, that is, developing language in the context in which it is used, as well as knowing and using the 'rules' of language in context – using language appropriately in social situations. Children identified as having such an impairment can experience great challenges in the classroom, given that so much of the teaching in schools and colleges depends on spoken and written forms of language (Smedley, 1990; Adams & Lloyd, 2007). Many children experience significant difficulties in understanding language and acquiring vocabulary (Bishop & Adams, 1989; Botting & Conti-Ramsden, 1999) and/or developing conversational skills, such as turn taking and adhering to the topic of the conversation (Bishop, 2000). Some are insensitive to their listeners and talk endlessly about their own preoccupations and interests. Some experience problems telling stories in a logical order (Norbury & Bishop, 2003) and have problems with over-literal use of language and making and understanding inferences (Leinonen & Letts, 1997). Some children are competent in using the formal structure of language whilst experiencing difficulties in semantic understanding (Rapin & Allen, 1983). There are no accurate figures for children who experience these difficulties (Law et al., 2002). Teachers and speech and language therapists report that there are increasing numbers of these children, although Rutter (2005) suggests that the increased numbers may relate to better identification rather than a real increase in prevalence.

Programmes to develop pragmatic language skills

In brief, as Hayden and Jordan (2015) note, young people with pragmatic language impairment experience difficulties in some or all of the following language skills that must therefore be taught explicitly:

- the use and understanding of body language, for example, facial expressions, gestures, and eye contact, and maintaining appropriate body distance;

- listening, speaking, and taking turns in conversation;
- using the appropriate volume, speed, and intonation in speech;
- talking about a topic of interest to others in the conversation;
- maintaining and ending conversations;
- recognising another's emotions;
- remembering what the other person already knows; and
- interpreting idioms, not simply the literal words.

Adams and Lloyd's (2007, pp. 229–30) description of a successful classroom intervention illustrates how to make both immediate and hidden meanings of language and communication, as well as the pragmatics of grammatical structure, explicit for children. This intervention has three principal aspects.

- First, good practice 'in interacting at an appropriate social and language level with the child' was established. The language demands in the classroom were modified, typically by 'having an assistant translate language into short meaningful utterances' accompanied by a visual demonstration.
- Then the children were taught 'the vocabulary of social situations and insight' into others' emotions. Changes to routines were added in small steps, and these were discussed before they were implemented. Children were supported to understand 'social and verbal inferences, metaphors and hidden meaning in language'.
- Finally, work on the pragmatics of language focused on 'explicit exercises and classroom support in exchange structure, turn-taking, topic management, conversational skills, building sequences, cohesion, and coherence in narrative and discourse'. The teaching methods that were used included 'modelling and individual practice; role-play; practising specific pragmatic skills in conversations; ... promoting self-monitoring and coping strategies'.

Pragmatic language impairment is often associated with autism (Adams & Lloyd, 2007).

THE EXAMPLE OF 'AUTISM'

The ICD-11 (WHO, 2021, §6A02 characterises what it terms 'Autism spectrum disorder' in what may be perceived as extremely negative ways:

> Autism spectrum disorder is characterised by persistent deficits in the ability to initiate and to sustain reciprocal social interaction and social communication, and by a range of restricted, repetitive, and inflexible patterns of behaviour, interests or activities that are clearly atypical or excessive for the individual's age and sociocultural context. The onset of the disorder occurs during the developmental period, typically in early childhood, but symptoms may not become fully manifest until later, when social demands exceed limited capacities. Deficits are sufficiently severe to cause impairment in personal, family, social, educational, occupational or other important areas of functioning and are usually a pervasive feature of the individual's functioning observable in all settings, although they may vary according to social, educational, or other context. Individuals along the spectrum exhibit a full range of intellectual functioning and language abilities.

The National Autistic Society reports that there are around 700,000 autistic people, including both adults and children, or more than one in 100, in the UK today.[4] In educational contexts, as noted in the *SFR* (DfE, 2021b), 92,567 school students in England, or 30 per cent of those with a Statement or Education, Health and Care Plan as of January 2021, were noted as having an 'Autistic Spectrum Disorder' (ASD). A total of 11.6 per cent of school learners were reported as receiving 'school support'. Of this number, 5.2 per cent were identified as autistic. It is really important, therefore, for all who are interested in education to know something about what constitutes autism, how we might understand autistic learners, and some of the ways in which we might address the difficulties associated with ASD, generally.

In 1943, Leo Kanner (1943) identified a difficulty in a small group of young children that seemed to centre on excessive focus on the

self. He called it 'early infantile autism' from the Greek αυτος (autos) meaning 'self'. This difficulty was marked by inability to relate to people and social situations from early life marked by profound 'aloneness', failure to use language fluently to communicate, and anxious and obsessive desire to maintain sameness. It was also characterised by fascination for objects that are handled with skill in fine motor movements, a good rote memory, over-sensitivity to stimuli, and apparently good cognitive potential.

Around the same time as Kanner, Hans Asperger in 1944 (1991) used the term 'autistic' to denote a range of traits in some ways similar to that commented on by Kanner. As Wing (1996) notes, this range included extreme egocentricity and an inability to relate to others, speech and language peculiarities, repetitive routines, motor clumsiness, narrow interests, and non-verbal communication problems. Asperger identified features additional to those already seen by Kanner. These were, firstly, sensory sensitivities and unusual responses to some sensory experiences: auditory, visual, olfactory (smell), taste, and touch. A number of publications have been written by writers reflecting on their own experiences of being autistic. In her recollections, Grandin (1996), writing from personal experience, described her hearing as like a microphone in a hearing aid, permanently at the full volume position. She saw herself as having two choices, either to turn the microphone off altogether or turn it on and be swamped with sound. Another account of personal experience (Barron, 1992) includes a description of a boy's super-sensitivity to the texture of food and needing to touch and feel it before it went into his mouth. Food had to be of one kind. For example, bread could not be made into sandwiches with fillings, otherwise it provoked vomiting.

Asperger also noticed an uneven developmental profile, a good rote memory and circumscribed special interests, and motor coordination difficulties. He noted, too, that one in ten people with ASD have what appear to be extremely well-developed skills in one specific area. These skills are often found in areas such as music, art, mathematical calculations, and calendrical calculation.

Wing and Gould (1979) identified what they termed a 'triad of impairments' in a broader group of 'autistic' children, about 15 per 10,000. This triad covers difficulty in social interaction (difficulty with social relationships, for example, appearing aloof and indifferent to other people), social communication, both verbal and non-verbal,

and imagination. In addition to this triad, repetitive behaviour patterns are a notable feature, as well as a resistance to change in routine.

While the groups share the same triad, there is some difference in emphasis. People with Asperger syndrome tend not to experience the levels of learning difficulties that are associated with autism, and delay in speech and language development is not likely. They often have measured levels of intelligence that are average or above. The Autism Society, for example, states that

> [a] distinction between Asperger's Disorder and autism concerns cognitive ability. While some individuals with autism have intellectual disabilities, by definition, a person with Asperger's Disorder cannot have a 'clinically significant' cognitive delay, and most possess average to above-average intelligence.
>
> (Autism Society, 2020, https://www.autism-society.org/
> what-is/aspergers-syndrome/ – accessed 10.12.21)

In autism, however, three-quarters of the population have difficulties in learning, some at a severe level.

Each area within the triad implies particular barriers to learning. Impaired social understanding and relating clearly affect interactions with other children and adults. A child who lacks social understanding is unlikely to understand unwritten social rules, recognise other's feelings, or seek comfort from others. More recently, however, the diagnostic manual of the American Psychiatric Association (DSM-V: APA, 2013) has combined the first two descriptions of difficulties into one. It also adds an additional element to the third: an unusual interest in, and way of responding to, sensory stimuli in the environment. As Frederickson and Cline (2015, p. 283) note, this dyad is comprised of difficulties in:

- social communication and social interaction; and
- restricted, repetitive patterns of behaviour, interests or activities including sensory difficulties.

The *Code of Practice* in England (DfE, 2015, §6.27) concurs with this description and suggests that 'young people with an Autistic Spectrum Disorder (ASD) may have needs across all areas, including particular sensory requirements'. They 'are likely to have particular

difficulties with social interaction. They may also experience difficulties with language, communication and imagination which can impact on how they relate to others' (DfE, 2015, §6.29). Grandin (1996), for example, recalls pulling away when others tried to give her a hug because being touched over-stimulated her senses and over-whelmed her. Autistic children may appear to behave 'strangely' or inappropriately and may often prefer to be alone. Higashida (2013, p. 47), another author writing from personal experience, explains what it feels like to spend so much time on his own:

> Ah, don't worry about him – he'd rather been on his own.
>
> How many times have we heard this? I can't believe that anyone born as a human being really wants to be left all on their own, not really. No, for people with autism, what we're anxious about is that we're causing trouble for the rest of you, or even getting on your nerves. This is why it's hard for us to stay around other people.

Grandin (op cit.) remembers always wanting to participate in activities with other children but not knowing how and never fitting in. She tried to work out how to behave from observing other people and learning through trial and error.

Difficulties in social communication mean that people on the autistic spectrum often find it hard to understand the meaning of gestures, facial expressions, or tone of voice. Higashida (2013, p. 43) explains why, for him, making and sustaining eye contact is so difficult during conversations:

> True we don't look at people's eyes very much. [...] I've been told again and again, but I still can't do it. To me, making eye contact with someone I'm talking to feels a bit creepy, so I tend to avoid it.
>
> Then, where exactly am I looking? [...] What we're actually looking at is the other person's voice. [...] we're trying to listen to the other person with all our sense organs When we're fully focused on working out what the heck it is you're saying, our sense of sight sort of zones out.

Difficulties with social imagination mean people with ASDs are unable to think and behave flexibly. This may result in restricted, obsessional, or repetitive activities and difficulties in developing the skills of playing with others. Children often find it hard to

understand and interpret other people's thoughts, feelings, and actions, predict what will or could happen next and understand the concept of danger. They may also find it hard to engage in imaginative play, prepare for change, plan for the future, and cope in new or unfamiliar situations.

Making inclusive provision at break- and lunchtime in schools

Given the issues facing autistic learners, it is not surprising that, in schools, they may find unstructured breaktimes and lunchtimes particularly difficult because these periods of time lack the routine that they need. Dining halls can be noisy and very busy with many unpredictable environments movement. In this environment children need to be able to process conversation quickly and, if they lack confidence in social interaction, they may feel isolated and/or be afraid of being bullied. The National Autistic Society (https://www.autism.org.uk/advice-and-guidance/topics/education/difficulties-break-times/teachers – accessed 10.12.21) offers very useful advice on how schools might support autistic learners sensitively and appropriately in these situations so that they feel included with their peers. Teachers might provide opportunities for social learning through organised lunchtime clubs that are structured and focused on the learners' interests. Social stories (see below for discussion of these) or comic strip conversations might be used to support a learner who is particularly anxious about a situation. Staff who understand autism should be used for supervision. Bullying should be clearly forbidden. Often a system of buddies can be supportive but it is important for there to be more than one buddy so that absence of a trusted buddy will not provoke anxiety and distress.

Some autistic pupils may find social interaction too challenging, and it can help to make a quiet safe area available to them.

According to the National Autistic Society in the UK (2017a),[5] the exact causes of autism are still not known, although there is evidence that genetic factors are implicated. Research also indicates that a variety of conditions affecting brain development that occur before, at, or soon after birth are associated with autism. Typically, autism in young people is identified through agreed diagnostic criteria consisting of a profile of symptoms and characteristics of autistic behaviour. 'There are no biological markers in the identification of autism', as Klin et al. (2000, p. 163) comment. The lack of specificity here has led to a number of challenges. Grandin and Panek (2013, pp. 4–5), for example, note that:

> autism can't be diagnosed in the laboratory [...] Instead, as with many psychiatric syndromes [...] autism is identified by observing and evaluating behaviors. Those observations and evaluations are subjective, and the behaviors vary from person to person. The diagnosis can be confusing, and it can be vague. It has changed over the years, and it continues to change.

We discuss the assessment of autism more fully in Chapter 10.

APPROACHES TO ADDRESSING DIFFICULTIES ASSOCIATED WITH AUTISM

In addressing difficulties associated with autism, all is not insurmountable. As the National Autistic Society states:

> There is no known 'cure' for autism. **We also believe that autism does not need a 'cure' and should be seen as a difference, not a disadvantage**.[6] We also warn people about fake cures and potentially harmful interventions.
>
> This does not mean that autistic people do not face challenges, but with the right support in place, they are more than capable of living fulfilling and happy lives.
>
> (https://www.autism.org.uk/advice-and-guidance/what-is-autism/
> the-causes-of-autism – accessed 10.12.21)

What is needed in educational terms to support the learning of students with severe forms of autism is an approach that combines structure and support. Indeed, among the core principles of 'good practice in autism education' in a report by the Autism Education Trust/CRAE (2011, p. 44) are to:

> embed specialist, evidence-informed approaches in quality-first teaching practice to remove barriers for students on the autism spectrum
>
> [...]
>
> build and consolidate autism expertise at a consistently high level by maintaining an on-going programme of training and CPD on autism for all staff.

so that staff can:

> Use innovative and individualised methods of adapting the curriculum, utilising students' strengths and interests, to make it accessible and rewarding for students with autism.

GENERAL APPROACHES IN THE CLASSROOM AND AT HOME

Class teachers have the responsibility of ensuring that all the learners in their classrooms make progress. In classrooms, teachers can address the learning and behavioural needs of children on the autistic spectrum in a number of ways. For example, a teacher can pay close attention to clarity and order, reduce extraneous and unnecessary material in order that children know where their attention needs to be directed, and maintain a predictable physical environment with absolutely predictable and regular routines, ensuring that everything is kept in the same place. Children might be taught agreed signals to be quiet or to call for attention. Teachers might provide specific low-arousal work areas free from visual distractions. Headphones might be made available to reduce sound. They might also provide a visual timetable with clear symbols to represent the various activities for the day, and a simple visual timer with, for example, an arrow that is moved across a simple timeline to show how much time has passed and how much is left.

Effective use of visual supports

The National Autistic Society (2021)[7] has listed a series of visual supports that can be real, printed, or on a smartphone or computer, for example, tactile symbols, objects of reference, photographs, video clips, coloured pictures, or line drawings, and symbols. There are suggestions about how they might be used effectively, both at school and at home, to support communication and social interaction.

In schools, and from the current author's personal experience and discussion with special educational needs' coordinators (SENCos), it can be very useful to have an agreed safe and quiet place, for example, the library, for autistic learners to go when they feel anxiety building or are overloaded by sensory stimuli. This may not be the same place for all autistic students and may need to be negotiated individually. It is really important that stigma is not attached to this place. It is also important that autistic learners have the opportunity to interact socially, so use of the agreed quiet location and its benefit to individual children should be monitored regularly.

Respectful use of language

The National Autistic Society (NAS) (2022, https://www.autism.org.uk/what-we-do/help-and-support/how-to-talk-about-autism – accessed 07.01.22) makes the especially important point that many autistic people, just as Grandin and Higashida (see above), see autism as a fundamental part of themselves. It is really important therefore to use positive language and ask individuals how they would prefer to be described. The NAS on the web page cited above offer important suggestions about terminology.

SPECIALIST APPROACHES

Many of the more specialist approaches for children with autism, for example, the Treatment and Education of Autistic and related Communication Handicapped Children programme (TEACCH) (Mesibov et al., 2004) and Lovaas (Jordan et al., 1998), rely on training or teacher direction, and less on intuitive responding, as befits the current national climate, with its emphasis on targets and measured improvements in students' progress.

THE TEACCH PROGRAMME

The TEACCH approach was developed in the early 1970s by Eric Schopler (Schopler et al., 1980; Schopler, 1997). It includes a focus on the individuality of the person with autism, 'the culture of autism', and the development of a programme around individual skills, interests, and needs (Mesibov, 2015) (www.autismuk.com/training/what-is-teech/ – accessed 10.12.21). The focus on individuality implies assessment that requires understanding children with autism as they are and then building programmes around each child's skill levels to help them develop as far as they can go. This programme is designed to combine cultivating individual strengths and interests with structured teaching. The primary aim of the TEACCH programme is to help prepare children with autism to live or work more effectively at home, at school, and in the community. The principles include improving skills through education and modifying the environment to accommodate individual autistic students, structured teaching rather than more informal approaches, and parents collaborating with professionals as co-therapists to continue the techniques at home. The National Autistic Society (2021),[8] notes that, in this programme some of the priorities are to focus on the individual together with his/her interests, skills, and needs, to understand the 'culture of autism', identify differences based on assessments of individuals, be flexible and teach flexibility, teach skills by using visual supports to organise tasks and the environment, support people at work, and also ensure that they are supported in leisure and/or social activities.

Important, also, to any TEACCH programme is developing communication skills and the opportunity to pursue social and leisure interests.

References to 'the culture of autism' suggest that children with autism are part of a distinctive group with common characteristics

that differ from peers. This implies not assuming a model of normal behaviour for every child where they are all expected to conform whether it suits them or not. In his personal account of the experience of autism, Higashida (2013, p. 16) emphasises the importance of not assuming that there is one 'normal' model of behaviour:

> even a straightforward activity like shopping can be really challenging if I'm tackling it on my own. During my miserable, helpless, frustrating days, I've started imagining what it would be like if everyone was autistic. If autism was regarded simply as a personality type, things would be so much easier and happier for us than they are now. For sure there are bad times when we cause a lot of hassle for other people, but what we really want is to be able to look towards a brighter future.

Structured teaching is an important priority 'because of the TEACCH research and experience that structure fits the "culture of autism" more effectively than any other techniques we have observed' (Mesibov, op cit.). This approach advocates a clearly structured physical environment, development of schedules, expectations that are made clear and explicit, use of visual materials to represent, for example, timetables, and precision teaching that breaks new skills and more appropriate behaviours into a clear hierarchy of development with specific targets and goals to measure progress. The TEACCH programme considers the environment in terms of how the child will be able to interact and learn from it: 'a TEACCH-influenced classroom places a large emphasis on physically structuring the room to facilitate learning interactions' (Sheehy, 2004, p. 347).

The Lovaas approach, on the other hand, is a form of applied behaviour analysis (ABA) that is built on behavioural methods such as reducing identified tasks into small discrete 'teachable' steps reinforcing appropriate behaviours associated with each step and using highly structured intensive teaching strategies. (See Chapter 4 for a discussion of applied behavioural approaches.) The ABA is used to reduce stereotypical autistic behaviours such as repetitive body movement through 'extinction' and the learning of socially acceptable alternatives to such behaviours:

> The Lovaas Model of Applied Behavior Analysis is a type of behavioral therapy that initially focuses on discrete trials: brief periods of one-on-one instruction, during which a teacher cues a behavior, prompts the

appropriate response, and provides reinforcement to the child. Children in the program receive an average of 35 to 40 hours of intervention per week, which consists of in-home one-to-one instruction, facilitated peer play, inclusion and support in regular education classrooms, and generalization activities for transfer of skills to natural environments. In addition, parents are trained in instructional techniques. The intervention generally lasts about three years.

<div align="right">(Institute of Education Sciences, 2010, p. 1)</div>

The use of Alternative and Augmentative Communication (AAC) is quite common where young people experience particular difficulties in verbal communication, and may be any kind of communication that replaces standard means of communication such as speech. Augmentative communication systems are designed to complement and/or enhance standard means of communication.[9]

Effective use of PECS

One form of AAC is the Picture Exchange Communication System (PECS) (https://pecs-unitedkingdom.com/pecs/), in which a child is taught to communicate with an adult by being given a card with a picture on it. In PECS, the adult teaches the child to exchange a picture of something for an item s/he wants, for example, to exchange a picture of a drink for a drink. Pictures can be used progressively to make whole sentences or express preferences, but it may take a long time to reach this stage of development in communication. The use of PECS is a key to a number of approaches such as the TEACCH programme.

The system is a form of augmentative and alternative communication. The programme is based on the understanding that children who cannot talk or write can be taught to communicate using pictures.

PECS was originally designed to help non-verbal autistic children to communicate, but it has also been used with adolescents and adults with a wide range of difficulties in communication, cognition, and motor movement.

A development on the use of single pictures is that of visual scheduling, that is a visual timetable of events that are to take place during the day. Establishing daily routines in autistic children's lives may well be important in providing predictability and thus reducing anxiety about what is happening around them.

In schools and other educational settings, as the NAS (2021) makes very clear on its website, autistic students may very well benefit from the provision of individual timetables where each lesson can be signalled with a specific card featuring pictures, words, or both. Students can place these cards by their workstations in the classroom or carry them around. These cards will provide the students with a visual sequence of events to which they can refer during the day, secure in the knowledge that they know where they should be, what is going to happen, and in which order. It is useful to put a Velcro backing on the cards that make up this timetable. Students can be encouraged to remove the cards at the end of the day to signify that the day's timetable has finished and now it is time to go home.

Providing visual schedules enables learners to see clearly what is happening and when. From his own experience, Dumortier (2004) comments that many of his problems could be avoided by prior planning. Schedules were very important to him and he needed to know well in advance what was going to happen, how it would happen, who would be involved, and so on. Any change of plan, including either being late or being early, could lead to feelings of frustration, powerlessness, anger, and anxiety.

An example of scheduling

In a recent interview (Wearmouth et al., 2018, p. 67), Martha, the mother of a ten-year-old autistic child, described how she and her husband use scheduling in their communication with him at home:

> We regularly use scheduling with picture cards at home. The cards have pictures of what we do during the day, places we visit, and tasks to be completed. At the beginning of the day, we choose pictures that represent what will happen that day. We stick the cards on a Velcro strip, and as we complete activities through

the day we unstick each card and 'post' it in a 'completed' box. The benefit is that my son can see the whole day's happenings and can predict what will happen next. I have found that using schedules has reduced my son's stress, and built his confidence and, over time, has increased his flexibility. If the schedule needs to change, it can be discussed and my son can see that the rest of the schedule remains unaltered, which can be reassuring to him.

The future quality of life for young people with ASD may well depend on how far they can learn to understand and interact with others rather than solely on the academic skills and qualifications they may have gained (Jordan & Powell, 1995). In order to develop greater understanding of personal emotions, children might be taught in a very deliberate, overt, and structured way to name their feelings and relate these to their own experiences, predict how they are likely to feel at particular times and in particular circumstances, and recognise the signs of extreme emotions such as anger. A visual gauge showing graduated degrees of anger in different shades of colour can often be helpful here.

Students might also be taught, again very deliberately and in small steps, to identify and name others' feelings and link these to possible causes and identify appropriate responses to others' emotions. They might, for example, keep a feelings diary in which they record times when they feel happy, sad, or frightened, and what they can do about this. Teachers might use art, drama, and social stories to identify the different kinds of emotions and/or explore their physical aspects and/or talk through situations that need to be resolved. Above all, it is really important to get to know the student really well and to understand his/her individuality, strengths, weakness, likes and dislikes, and so on.

THE USE OF ICT TO SUPPORT COMMUNICATION

As a number of researchers have noted, computer-assisted learning has the potential to be used as a tool for reducing barriers to learning (Singleton, 1994; Florian & Hegarty, 2004). One of these barriers is difficulties in communication (Wearmouth, 2009). Mitchell

(2014, p. 192), for example, notes that, over 20 years ago, US Congress expressed a view that appropriate technology can enable individuals to, amongst other things:

- participate in and contribute more fully to activities in their home, school, and work environments, and in their own communities; and
- interact to a greater extent with non-disabled individuals.

Assistive technology includes items of equipment or products, both hardware and software, that are used to increase, maintain, or improve functional capabilities of individuals who have disabilities of any kind. A wide range of devices and software has the potential to meet a wide range of difficulties in communication and interaction, provided its use is very carefully considered and matched to the individual and the learning context.

Assistive devices

Many assistive devices are available to enable students to communicate: electronic language boards, voice synthesisers, and voice recognition software. For example, screen magnifiers, or screen magnifiers with a speech facility, are intended to support students who experience visual difficulties to access on-screen text, graphics, tool bars, icons through magnification, colour-changing options, speech, Braille output, and so on (www.inclusive.co.uk/product-list?Text= screen%20magnifier – accessed 10.12.21).

The standard computer keyboard is designed to be used with two hands, and it favours right-handed people with the numeric keypad on the right. It is also very sensitive so that a string of letters may appear on the screen if a key is held down for slightly too long. The way the keyboard behaves can be changed, however, by using some of the accessibility in, for example, Windows (https://support.microsoft. com/en-us/help/14202/windows-7-make-keyboard-easier-to-use – accessed 10.12.21). The use of 'StickyKeys' enables one finger to be used to operate shift, control, and alt keys. 'FilterKeys' allows adjustment to the length of time a key needs to be held down before it appears on the screen (https://support.microsoft.com/en-ie/help/155519/ using-the-shortcut-key-to-enable-filterkeys – accessed 10.12.21).

'MouseKeys' enable the mouse pointer to be moved around using the numeric keypad keys. Keyguards with holes positioned over each key can make it impossible to press two keys at once whilst it is possible to rest hands and arms on the guard without pressing keys (www. bltt.org/quicktips/foakeyguards.htm – accessed 10.12.21). They can be removed and fitted for use only when required. A substitute to this, 'IntelliKeys' can be used as a programmable alternative keyboard that plugs into the keyboard or USB port to enable users who have difficulty using a standard keyboard as a result of physical, visual, or cognitive disabilities to type, enter numbers, navigate on-screen displays, and carry out menu commands. IntelliKeys has no keys. Instead, overlays with large, well-spaced keys in high contrast colours to help students find letters, numbers, words, and directional arrows slide over its programmable surface to create keyboards for different students and curriculum areas (http://www.inclusive.co.uk/product-list?Text= IntelliKeys – accessed 10.12.21).

Different sizes and shapes of keyboards can also replace the standard keyboard and the position of the keyboard can be changed to accommodate individual needs. Small keyboards that suit singlehanded users can fit between the arms of a standard wheelchair, for example. Separate numeric keypads are also available, if appropriate to the young person's need. Keyboards with larger or brightly coloured keys are also available. Retractable lap trays bolted under the desk can hold the keyboard to enable a lower typing position if needed. Keyboards can be tilted, and switches and pointers can be fixed in specific positions where they can be handled more easily. Alternatively, on-screen keyboards enabling letters to be selected by a mouse or trackball can be used to make the selection. Some on-screen keyboards also have a facility for word prediction to make typing quicker (http://windows. microsoft.com/en-us/windows/type-without-keyboard#type-without-keyboard=windows-10 – accessed 10.12.21).

It is also possible to adjust the way the mouse operates, for example, the speed, and the amount of time needed for double clicking. The buttons can also be swapped over for left-handed use. Mice also come in different sizes and shapes, and require varying amounts of pressure on buttons. A trackball is like an upturned mouse, but it is a static device with the ball on the top, which is moved with fingers, thumbs and palms (www.trackballmouse.org/ – accessed 10.12.21). Larger trackballs can be moved with feet.

Software to address communication and interaction needs

For those with limited or no speech, including students with autistic spectrum disorders and difficulties in understanding language, as already noted above, AAC is a useful means of communicating with others. In supporting the development of expressive and receptive language, it can reduce frustration levels. Many of the symbol communication systems used by students who experience multiple and profound difficulties in communication are supported by software programs to facilitate writing. An example of a software program for AAC, as we noted above, is the symbol system produced by Widgit Software. (See Chapter 6 for a discussion of this system.)

Voice recognition is an alternative to typing on a keyboard. Talking to the computer results in words appearing on the screen. This software is useful for those who find typing difficult, painful, or impossible. Voice recognition software can also help those with spelling difficulties, including dyslexic users, because recognised words are always correctly spelled.

There can be a difficulty in the use of voice recognition software to support the writing of text, however, where students' speech is unclear and their words are not sufficiently differentiated, clear, or consistent to be encoded into text. With screen-based devices such as a touch screen and a light pen, which is a light-sensitive stylus wired to a video terminal that is used to draw pictures or choose an option from a menu, selections and movements can be made by pointing at the screen surface. However, again, where a user is physically or cognitively unable to use any keyboard or pointing device, then a starting point can be to use a switch, a button that sends a signal to the computer to drive the software. Switches come in a variety of shapes and sizes and can be operated by any controlled movement of the body.

Use of the internet appears, at face value, to be a very useful medium for supporting the learning of some students who experience difficulty. Recent developments have come a long way in making access a reality for many students with special learning needs. However, this needs careful consideration of students' special learning needs (Paveley, 2002). Findings from the 1998 NCET project (Wearmouth, 2000, pp. 203–04) indicated that 'real' time access to raw information from the worldwide web is unrealistic for many

students. Interesting or useful web materials often need to be saved to disc for future use. Further, where students are isolated from peers for whatever reason, for example, the location of their home, or difficulties with mobility, it may be especially important for students to make contact through e-mail or video-conferencing with peers elsewhere. Use of e-mail provides purpose for reading and writing skills and is highly motivating to students. An e-mail system that integrates the use of a concept keyboard, symbols, a talking word processor and text, and which automatically deletes headers when messages are received would be useful. However, the way in which students are given choice of e-mail and video-conferencing partners has to be negotiated very carefully.

Problems with oral expression, listening, written expression, basic reading skills or comprehension, and mathematics can predispose to difficulties in autonomous understanding of complex texts and problem solving. Effective computer use can reduce problems through school or college, support reading acquisition, and improve spelling and intelligibility of written work.

Reading difficulties

Those who experience reading difficulties may be assisted with audio books that are available in a variety of formats, including CDs and MP3 downloads, optical character recognition (OCR) devices – which enable text to be scanned into a computer or handheld unit and the scanned text then read aloud through a speech decoder – and speech synthesisers/screen readers that display and read aloud text on a computer screen, including text that may have been typed by the student (Mitchell, 2014). An example of a programme to develop switch-accessible stories and slide shows is 'SwitchIt! Maker 2' (www. inclusive.co.uk/switchit-maker-2-p2353 – accessed 10.12.21). Each activity has a sequence of on-screen pages that can have a picture, video, or text-based material, music, or recorded speech. Pages can be turned by a simple switch, the computer's spacebar, the mouse buttons, or IntelliKeys.

Recent developments of apps for mobile devices include those designed to assist reading, for example, 'Speak it!' (https://www.speakit. co.uk/ – accessed 10.12.21) and Webreader available for Android, Smartphones, and iPads (www.getwebreader.com/ – accessed 10.12.21).

Writing difficulties

Using technology can also facilitate the physical task of writing for some students and/or support correct spelling, punctuation, grammar, and word usage.

Word processing can offer

> a means of drafting and re-drafting that is easy, efficient and accessible and so is a great equaliser in presentation. ... Pupils can work more quickly and demonstrate different types of writing exercise and have the opportunity to experiment ... and thus demonstrate their true ability.
>
> (Lilley, 2004, p. 89)

The use of a word processor can encourage students whose writing or spelling skills do not adequately reflect their higher general level of performance and can produce results that may look as good as that of peers (Wearmouth, 2017). The word processor may avoid the aversion that is often produced by pen and paper: the computer provides a safe environment for students who can take their time without holding the rest of the class back and make mistakes in private, without fear of humiliation. Some systems have practical features related to grammar and syntax. Using a word processor improves the content and presentation of work; students are therefore more likely to experiment with their writing and to express themselves confidently.

Word processors with speech synthesis can be very powerful. Learners can hear what they have written, either as they are writing, or hear the whole text after they have finished. Sound can be introduced to text by dropping it into a standard text-to-speech utility or talking word processor. Sound to support reading and writing can be used in many different ways. Voice recognition is an alternative to typing on a keyboard. However, use of voice recognition software to support the writing of text can be difficult where students' words are not sufficiently clear to be encoded into text.

An example of a writing support and multimedia tool for children of all abilities is 'Clicker Writer' (https://www.cricksoft.com/uk/clicker/8/word-processor – accessed 10.12.21). At the top of the screen is a word processor, at the bottom the 'Clicker Grid'. This has 'cells' containing letters, words, or phrases that teachers can click

on to send them into Clicker Writer so that students can write sentences without actually writing or using the keyboard. 'Clicker 8' has now been developed to work with 'eye gaze' software, so that those students who access computers through the use of eye gaze can now access a whole range of Clicker sentence building grids, word bank grids, writing frames, matching activities, talking books, and speaking and listening activities (https://www.cricksoft.com/uk/clicker/8/word-processor – accessed 10.12.21).

SUMMARY

Communication is a vital part of building relationships, sharing experiences, and learning. A number of conditions are associated with difficulties in this area, for example, pragmatic language impairment, autism, and profound and multiple learning difficulties. Whilst it is clearly important to understand the condition in order to respond effectively to children's learning needs, this is only part of the story. Also important is getting to know the individual child, his/her strengths and interests, and the family members, and their thoughts and wishes.

In the next chapter, we consider issues related to needs in cognition and learning, and some of the ways in which these might be addressed.

NOTES

1 Figures from https://explore-education-statistics.service.gov.uk/data-tables/fast-track/ad01069e-f490-4855-9b2c-7f784a98758d.
2 This is termed 'phonology'.
3 https://chatterpack.net/blogs/blog/list-of-free-speech-language-communication-and-send-resources-for-schools-and-parent-carers – accessed 09.12.21
4 https://www.autism.org.uk/advice-and-guidance/what-is-autism – accessed 09.12.21
5 https://www.autism.org.uk/advice-and-guidance/what-is-autism/the-causes-of-autism – accessed 10.12.21
6 Emphasis through bold script is in the original quotation.
7 https://www.autism.org.uk/advice-and-guidance/topics/communication/communication-tools/visual-supports

8 https://www.autism.org.uk/advice-and-guidance/topics/strategies-and-interventions/strategies-and-interventions/teacch – accessed 10.12.21

9 https://www.autism.org.uk/advice-and-guidance/topics/communication/understanding-and-developing-communication#H2_20 – accessed 10.12.21

6

UNDERSTANDING AND ADDRESSING NEEDS IN COGNITION AND LEARNING

INTRODUCTION

The chapter will focus on the second of the four broad areas of need outlined in the Code of Practice in both England (DfE, 2015) and Wales (NAW, 2021): cognition and learning. The Latin root of the word 'cognition' is '*cognoscere*', which means 'to get to know' or 'to recognise'. In general terms, the frame of reference within which 'cognition' is used in the Codes of Practice relates largely to information processing associated with problem solving, language, perception and memory, and the development of concepts. The cognitive difficulties experienced by some students clearly overlap with the area of communication and interaction discussed in Chapter 5. It is obvious, for example, that language acquisition and use are integral to thinking, problem solving, and communication (Wearmouth, 2009).

Here in Chapter 6, we begin by reflecting on what is often called a 'specific learning difficulty' (SpLD), a term which relates to certain aspects of human information processing. We discuss a particular example: dyslexia. We go on to look at difficulties in general, particularly the kinds of challenges faced by young people identified as experiencing 'moderate' learning difficulties, and profound and multiple learning disabilities. We discuss the example of Down's

syndrome to exemplify learning difficulties that may lie on a continuum between mild/moderate and severe.

SPECIFIC LEARNING DIFFICULTIES

SpLD is an umbrella term that refers to a difficulty with particular aspects of learning irrespective of overall ability level. In Chapter 5 we referred to the document *Statistical first release (SFR). Special educational needs in England* published annually by the Department for Education (DfE) from its compilation of data relating to the incidence of SEND in its schools in England. According to this text (DfE, 2021b), in January 2021 in England, 145,187 young people, or 14.5 per cent of those recorded as receiving 'SEN support', and 11,610, or 1.1 per cent of those with a Statement or EHC Plan had been identified as experiencing SpLD.

The term used around the world is slightly different, but is described in similar ways. The International Classification of Diseases ICD-11 (WHO, 2021, §6A03),[1] for example, uses the term 'developmental learning disorder' that it describes as:

- [...] characterised by significant and persistent difficulties in learning academic skills, which may include reading, writing, or arithmetic. The individual's performance in the affected academic skill(s) is markedly below what would be expected for chronological age and general level of intellectual functioning, and results in significant impairment in the individual's academic or occupational functioning. Developmental learning disorder first manifests when academic skills are taught during the early school years. Developmental learning disorder is not due to a disorder of intellectual development, sensory impairment (vision or hearing), neurological or motor disorder, lack of availability of education, lack of proficiency in the language of academic instruction, or psychosocial adversity.

In the USA, the *Diagnostic and statistical manual of mental disorders*, fifth edition (DSM-V) (APA, 2013, p. 68) offers a definition of what it terms 'specific learning disorder':

- Specific learning disorder is a neurodevelopmental disorder with a biological origin that is the basis for abnormalities at a cognitive

> level that are associated with the behavioral signs of the disorder. The biological origin includes an interaction of genetic, epigenetic, and environmental factors, which affect the brain's ability to perceive or process verbal or nonverbal information efficiently and accurately.

In other words, according to this definition, and similar to the definition of SpLD used in the UK, such a 'disorder' or 'difficulty' is related to the brain's ability to process information.

As the APA (2013) notes, learning difficulties are considered 'specific' for a number of reasons. They cannot be attributed to:

- factors such as economic or environmental disadvantage or lack of access to education;
- general difficulties in learning. So-called 'gifted' individuals may also experience SpLD; or
- difficulties in hearing or vision.

Further, the learning difficulty may be restricted to one academic skill or area, for example, reading single words or retrieving or calculating number facts. An individual may experience one of these or they can co-exist as part of a wider profile. These learning difficulties are persistent, despite the provision of extra help at home or school. There are no known biological markers of specific learning disorder.

EFFECTS OF SPLD ACROSS AGES AND SECTORS

Given the increasing demands of the academic curriculum as young people progress through the school system, it is probably not surprising that proportionately more secondary-aged students than primary-aged are identified as experiencing SpLD of a sufficiently serious degree to warrant additional support. In January 2017, for example, of those young people with SEN support, 26.0 per cent of 15-year-olds had this primary type of need compared with 10.4 per cent of seven-year-olds (DfE, 2017).

Although SpLD is lifelong, its effects on the individual learner depend on the range and severity of the individual's learning difficulties, the available support systems and intervention, and so on. Even so, problems with reading fluency and comprehension, spelling, written

expression, and numeracy skills in everyday life typically persist into adulthood:

- In the early years, young children with SpLD commonly experience difficulties with phonological awareness, working memory, rapid serial naming, rhyming or counting, or the fine motor skills required for writing, pronouncing words correctly, and remembering names of letters, numbers, or days of the week, recognising letters in their own names, and learning to count. They may have trouble breaking down spoken words into syllables, for example, 'grand-ma', recognising words that rhyme, for example, hat, mat, and sat, and connecting individual letters with sounds.
- In infant schools, children typically continue to experience difficulty learning letter-sound correspondence, decoding of words, spelling, or number facts. Reading aloud is usually slow and inaccurate. Some children struggle to understand the amount that a number represents.
- In Years 1 to 3 in primary school, children may continue to have problems recognising and manipulating phonemes,[2] reading common one-syllable words, recognising common irregularly spelled words, and sequencing numbers and letters. They may also find it difficult to remember number facts or procedures for the four rules of number: adding, subtracting, multiplying, and dividing, and find ways to avoid doing it. In later junior years, children with SpLD may confuse words that sound alike, have difficulty remembering dates, names, and telephone numbers, and completing homework or tests on time. Reading accuracy, spelling, and writing may be very poor.
- In their teenage years, students may have mastered word decoding, but reading may well remain laboured. They are likely still to experience problems in reading comprehension and writing, including spelling, and poor mastery of mathematics.
- Into adulthood, they may continue to make numerous spelling mistakes and read only with a lot of effort. They may need to reread tests frequently to understand or get the gist and, consequently, may avoid activities that require reading or arithmetic. Across the lifespan, somatic complaints or panic attacks are common.

Though SpLD occurs across language, culture, race, and socioeconomic backgrounds, as the APA (2013) notes, the nature of the spoken and written symbol systems in particular languages, and the variety of practices across cultures and educational systems, means that it is experienced differently in different contexts. For example, the cognitive processing requirements of reading and working with numbers vary greatly across the different sets of conventions, including spelling, for writing in the various languages. In the English language, spelling is frequently irregular. The 'behavioral signs' of a specific difficulty in learning to read English are inaccurate and slow single word reading. In languages that have more direct sound–letter correspondence, for example, in Spanish and German, and in non–alphabetic languages, for example, Chinese and Japanese, the significant feature of SpLD is slow but accurate reading.

Any assessment of SpLD for a learner for whom English is an additional language should consider the learner's linguistic and cultural context as well as his or her experience of education and learning in the original culture and language. As the working party of the British Psychological Society (BPS) (2005, p. 10) comments:

> Even when the learner's home language is not English, research has shown that phonological difficulties, as one of the important determinants of literacy, can be identified in the language of tuition. The purpose is then to piece together the puzzle of dyslexia within a particular educational, social and cultural context. This involves an understanding of the literacy learning process and the reciprocal effects of educational achievements, cognitive processes, instructional circumstances and the learner's perceptions, strategies and experiences.

THE EXAMPLE OF DYSLEXIA

As noted above, one of the specific areas in which some young people experience difficulties in learning that are 'not due to a disorder of intellectual development, sensory impairment (vision or hearing), neurological disorder, lack of availability of education, lack of proficiency in the language of academic instruction, or psychosocial adversity' (WHO, 2021, §6A03.0)[3] is what is often termed 'dyslexia'. The term that is used, and what actually constitutes 'dyslexia'

is often a matter of some controversy, however. The WHO (2021, 6A03.0; 6A03.1) uses the terms 'Developmental learning disorder with impairment in reading' and 'Developmental learning disorder with impairment in written expression'. The first, 'Developmental learning disorder with impairment in reading' is described as:

> characterised by significant and persistent difficulties in learning academic skills related to reading, such as word reading accuracy, reading fluency, and reading comprehension. The individual's performance in reading is markedly below what would be expected for chronological age and level of intellectual functioning and results in significant impairment in the individual's academic or occupational functioning.

'Dyslexia' is a psychological explanation of difficulties in learning. As with other specific learning difficulties, the information-processing system of 'dyslexic' individuals is seen as different from that of non-dyslexics in ways that have an impact on a number of areas of performance. Pumfrey (1996) describes dyslexia as a 'variable syndrome', implying that definitions of dyslexia may vary and be interpreted in different ways. Some definitions relate only to difficulty in acquiring literacy, as reflected by its derivation from Classical Greek: $\delta\upsilon\sigma$ (dys), meaning 'bad' or 'difficult', and $\lambda\varepsilon\xi\iota'\varsigma$ (lexis), meaning 'word', or 'speech'. Other definitions are wider and include reference to difficulties in coordination, personal organisation, balance, patterning, directionality (right/left confusion), sequencing, rhythm, orientation, memory, and so on.

In terms of literacy acquisition, the difficulties experienced by dyslexic students are usually related to difficulties in processing either visual or/and auditory information and making the connections between the visual symbols and the sounds they represent, commonly called 'decoding'. In relation to visual factors, learners may experience difficulty in any of the following areas (Wearmouth, 2009): recognition of the visual cues of letters and words, familiarity with left–right orientation, recognition of word patterns and recognition of letter and word shapes. Or they may encounter problems with any of the following auditory factors: recognition of letter sounds, recognition of sounds and letter groups or patterns, sequencing of sounds, corresponding sounds to visual stimuli, discriminating sounds from

other sounds, and/or discriminating sounds within words. The BPS working party adopted this narrower view of dyslexia related solely to literacy:

> Dyslexia is evident when accurate and fluent reading and or spelling develops very incompletely or with great difficulty. This focuses on literacy learning at the 'word level' and implies that the problem is severe and persistent despite appropriate learning opportunities. It provides the basis for a staged process of assessment through teaching.
>
> (British Psychological Society, 2005, p. 8)

A wider definition was espoused by the Rose Review on identifying and teaching dyslexic children (Rose, 2009, p. 30). This review identifies dyslexia as a learning difficulty associated with 'difficulties in phonological awareness, verbal memory and verbal processing speed' that 'affects the skills involved in accurate and fluent word reading and spelling', but also acknowledges a wider range of information-processing difficulties in various 'aspects of language, motor coordination, mental calculation, concentration and personal organisation'. However, these aspects alone are not markers of dyslexia. A 'good indication' is the extent to which 'the individual responds or has responded to well-founded intervention'. In other words, as the BPS (1999) also implies, if a child experiences difficulties, but has not received good teaching, then it cannot be assumed that s/he is dyslexic.

The British Dyslexia Association (BDA) concurs with this wider view but also 'acknowledges the visual and auditory processing difficulties that some individuals with dyslexia can experience', and notes that dyslexic readers 'can show a combination of abilities and difficulties that affect the learning process'.[4]

ASSOCIATION BETWEEN DYSLEXIA AND INTELLIGENCE

We have already noted how any individual may experience an SpLD irrespective of intelligence level, and this includes dyslexia. Low achievement scores on one or more standardised tests or subtests within an academic domain[5] are needed to be certain of a specific difficulty. However, academic skills are distributed along a continuum. There is no natural cut-off point that can be used to differentiate

individuals with and without a specific disorder or difficulty in learning. Any threshold used to specify what constitutes 'significantly low' academic achievement is to a large extent arbitrary and might be considered an administrative convenience that is used to determine which students should receive special or additional assistance under law related to SEND in England, Wales, and Northern Ireland, or additional support needs in Scotland, or 'reasonable adjustments' under disability legislation.

EFFECTS ON PERFORMANCE

The APA's (2013) 'behavioral signs' of a specific learning disorder closely reflect Riddick et al.'s (2002, pp. 12–13) description of the way in which dyslexia affects young children's performance in various areas:

- At pre-school level, there may be a delay in spoken language, including difficulty in learning nursery rhymes and verbal sequencing, for example, days of the week and letters of the alphabet. There may also be poor gross motor coordination, for example, in learning to ride a bicycle or swim, poor fine motor skills, for example, in copying shapes and letters, and poor short-term memory, for example, remembering a sequence of instructions and/or names.
- At primary age, a child is likely to experience difficulties in reading, writing, spelling, and number work. The child may be unable to identify rhythm and alliteration or read single words accurately. S/he may reverse some words, for example, 'pot' and 'top', miss out whole lines and read some sections of text twice without realising it, and have better understanding of text than word accuracy. Reading age for fluency and accuracy is likely to be below chronological age. Children who begin school with poor letter knowledge and poor rhythmic ability may be at risk of developing difficulties in reading. Snowling (2000, pp. 213–14), for example, says that 'Dyslexia is a specific form of language impairment'. Difficulties in encoding the phonological features of words (that is, the sound system of a language) is core to dyslexic children's difficulties. In Snowling's view: 'Dyslexia

specifically affects the development of reading and spelling skills'. A child may spell the same word different ways in the same text, spell incorrectly words learnt for spelling tests, make several attempts to spell words with frequent crossings out, spell phonetically but incorrectly, use what look like bizarre spellings for example, 'bidar' for 'because', leave out syllables, for example, 'onge' for 'orange', or part of a letter blend especially when there is a blend of three letters, for example, 'sred' for 'shred', reverse letters, especially 'b' and 'd', 'p', and 'q'. S/he may experience difficulty copying from the board, produce work that is chaotic or very untidy, begin writing anywhere on the page, confuse upper- and lower-case letters, produce very little output, and what there is may be unintelligible even to the child.

- Dyslexic children often experience a number of difficulties in mathematics, including the learning of number bonds and multiplication tables and the understanding of concepts involving directionality. As Weavers (2003) comments, time and spatial concepts can prove difficult. Children may find sequencing activities and orientation or both numbers and processes hard. Confusion can arise through having to process different operations in different directions, for example, the conventional right to left calculation of addition and subtraction, and left to right of division. There may be limited spatial awareness and visual discrimination, resulting in confusion of signs and reversal of digits. Children may also have very poor mental arithmetic (mental manipulation of number/symbols in short-term memory) (Wearmouth, 2009).

- At secondary level, students may become withdrawn, subdued, anxious about reading out loud or taking written tests, socially isolated, and may experience psychosomatic difficulties, for example, sickness and headaches (Riddick et al., 2002). S/he is likely also to feel very tired because of the exertion involved in trying to cope with increasing literacy demands (Wearmouth, 2004a).

THEORIES EXPLAINING DYSLEXIA

There are a number of theories that attempt to explain the difficulties experienced by dyslexic learners.

Visual-based theories

As Stein (2012, p. 279) notes 'vision is the most important sense for reading'. The optical image that is formed in the eye goes through a number of processes before we become conscious of it. There are many young people who experience what might be called 'visual reading difficulties', who complain 'that letters and words appear to move around or distort when they try to read, or the white page glares and hurts their eyes' (ibid.). As Everatt (2002) explains, there are visual–based theories that propose that dyslexia may be the consequence of an abnormality in the neural pathways of the visual system. There are others suggesting a lower level of activity in the areas of the visual cortex thought to be responsible for identifying the direction of movement (Eden et al., 1996).

Deficit in the magnocellular sub-system

Under daytime light levels, visual processing takes place in parallel through two sub-systems, the visual 'magnocellular' and 'parvocellular' systems (Evans, 2012). The magnocellular system comprises a set of large (hence 'magno') nerve cells 'that are responsible for timing visual events, hence for detecting motion' (Stein, 2012, p. 279). The parvocellular system 'is slower and exists to provide a more detailed analysis of objects close to the centre of the field of view and stationary or slow moving' (Evans, 2012, p. 33). Stein (op cit.) describes how eyes move a small amount continually to allow the visual pigment that converts light into nerve impulses to regenerate. The magno cells detect unwanted movement and enable the eyes to lock on target. There is 'a fairly large body of research' (Evans, 2012, p. 33) that dyslexia is often associated with a deficit in the magnocellular pathway.

Meares-Irlen syndrome: 'visual stress'

There is also a view that visual difficulties may be caused by over–sensitivity to certain wavelengths (or colours) of light. This is sometimes referred to as scopotic[6] sensitivity syndrome (Irlen, 1991), 'Meares-Irlen syndrome, or 'visual stress'. Coloured filters, overlays, or lenses that are said to alleviate reading problems for some learners (Wilkins

et al., 1994) have increasingly been incorporated into teachers' practice, with variable results. Stein (2012, p. 280) explains that magno cells in the visual perceptual system 'are most efficiently stimulated by yellow light'. He goes on to state that

> about one third of children with visual problems can be helped by viewing through yellow coloured filters either as overlays placed over the print or in the form of yellow tinted spectacles. This is also why printing text on buff or yellow paper is often helpful.

Other dyslexics with visual reading problems may benefit from blue filters that stimulate receptors most sensitive to blue light. Some, estimated by Stein as 19 per cent, may not benefit from any coloured filters.

Cerebellar deficit hypothesis

The cerebellum is a densely packed and deeply folded subcortical brain structure, also known as the 'hind brain' (Fawcett & Nicolson, 2001). In humans, it accounts for 10–15 per cent of brain weight, 40 per cent of brain surface area, and 50 per cent of the brain's neurones. Damage to different parts of the cerebellum can lead to different symptoms in humans, ranging from disturbances in posture and balance to limb rigidity, loss of muscle tone, lack of coordination, and impaired timing of rapid pre-planned automatic movements. Fawcett and Nicolson (2008) hypothesise that 'cerebellar deficit' dysfunction in the cerebellum can lead to a lack of fluency in skills that should be automatic, for example, letter-sound knowledge and coordination of motor movements. There is an argument, although by no means universally agreed, that the causal chain between cerebellar problems, phonological difficulties, and eventual reading problems might account for three criterial difficulties of dyslexia: writing, reading, and spelling (Fawcett & Nicolson, 2001).

The 'Balance Model' of reading and dyslexia

The 'Balance Model' of reading and dyslexia is another example of a biological model (Robertson & Bakker, 2002). The balance model hypothesises that early and advanced reading – that is, reading through

decoding and attention to perceptual features of text – is mediated by the right hemisphere of the brain, and reading for meaning by the left. This model predicts that some children, P (perceptual)-type dyslexics rely too much on the perceptual features of text and may not be able to shift from right to left in the hemispheric mediation of reading. Other children, L (linguistic)-type dyslexics, pay too little attention to perceptual features of text and rely on linguistic features of text to read and construct meaning.

P- and L-type dyslexics differ with regard to the speed of processing of reading-related information. P-types are faster than L-types in deciding whether all letters in an array are the same or different and show accurate but slow and fragmented reading. L-types are fast when it comes to the question of whether a word is real or not (Bakker, 1990; Licht, 1994; Fabbro et al., 2001), but they tend to be inaccurate readers. The allocation to subtypes is based largely on observation of learner performance in the particular aspects of the reading process that are causing concern (Robertson & Bakker, 2002). In theory, intervention can aim to directly adapt learning behaviour in line with the identified weaknesses in reading behaviour. However, in research designed to evaluate the balance model (Dyer et al., 1999), participants were given either an intervention programme specifically designed for their particular dyslexia subtype or a programme designed to be inconsistent with their subtype. Contrary to predictions, regardless of the choice and type of intervention, participants made gains in all of the reading measures.

Phonological deficit hypothesis

Since the 1980s, the dominant theory used to explain dyslexia has been the phonological deficit hypothesis (Bradley & Bryant, 1983; Snowling, 2000; Stanovich, 2000). Phonological representations can be interpreted as the knowledge about sounds that a reader brings to the task of reading. Phonological processing is strongly related to the development of reading. Difficulties experienced at the level of phonological representation and the relationships between symbols and the sounds they represent constrain reading development. Dyslexic children with poorer phonological representations will have fewer compensatory word attack strategies to draw on and this will further undermine their reading performance. Activities such as non-word

reading are problematic because of the difficulties associated with sound–symbol relationships. Hatcher and Snowling (2002) suggest that the most crucial factor in the individual profiles of dyslexic children is the severity of the lack of development in phonological representations. This, therefore, can be viewed as one of the most robust signs of dyslexia. Hatcher and Snowling conclude that assessment of phonological skills is therefore necessary by, for example, providing examples of tasks: rhyme recognition, rhyme production, and phonological manipulation such as phoneme deletion and letter knowledge, which can be found in some of the established tests available for this purpose. This view has considerable implications for intervention programmes, particularly in the early years and in infant and junior schools.

ADDRESSING DIFFICULTIES ASSOCIATED WITH DYSLEXIA

In their review of dyslexia, Rice and Brooks (2004) conclude that research appears not to indicate that 'dyslexics' and 'ordinary poor readers' should be taught by different methods. Responding to questions about whether dyslexic students required different methods from other poor readers, in the letters page of the BPS journal, *The Psychologist*, Elliott (2005, pp. 728–30) states:

> But we were actually questioning whether children with dyslexia (as traditionally defined) respond differently to intervention from those with generalised learning problems. In rejecting this, we highlighted the absence of clear evidence that there exists a particular teaching approach that is more suitable for a dyslexic subgroup than for other poor readers.[7]

He goes on to state his view that:

> splitting poor readers into two groups – dyslexic sheep and ordinary poor-reading goats – has little practical value for dealing with literacy problems. Rather than pouring resources into dyslexic assessments, we would, at the current time, be wiser to target all poor readers at an early age for intervention.

It therefore seems that the same kind of approaches to addressing reading, writing and mathematical difficulties that are appropriate for

dyslexic learners can also be useful for other students who experi–
ence difficulties in these areas.

Useful support material

Brooks (2016) has produced a very useful publication *What
works for children and young people with literacy difficulties?*
that has been designed to investigate the following question
(p. 11): what intervention schemes are there which have been
used in the UK in an attempt to boost the reading, spell-
ing or overall writing attainment of lower-achieving pupils
between the ages of five and 18, and have been quantitatively
evaluated here? What are those schemes like, and how effec-
tive are they? This is available at https://www.helenarkell.
org.uk/documents/files/What-works-for-children-and-
young-people-with-literacy-difficulties-5th-edition.pdf.
The British Dyslexia Association[8] offers useful general advice
to families and schools on techniques to use to support dys-
lexic children's literacy acquisition in the areas of spelling,
handwriting, homework, and reading.

Teaching approaches for dyslexic students can be grouped into
those that are designed to enable the child to overcome the difficul–
ties that are experienced as far as possible – almost to train the per–
sonal information–processing system to become more organised in
a deliberately systematic and focused way [current author's personal
reflections] – and those that enable the child to cope.

Focusing on the information-processing system

The four approaches below focus more on what we are conceptual–
ising here almost as 'training' the individual's information–processing
system to enable a greater degree of organisation.

Multi-sensory approaches to learning

As we have discussed above, dyslexia is an SpLD in which a num–
ber of sensory inputs may be implicated: visual, auditory, and so

on. Multi-sensory teaching approaches are a very important way to harness senses simultaneously to support students' learning so that, for example, difficulties in one sensory area might be compensated through another. In any case, introducing visual, tactile, auditory, and kinaesthetic modes to teaching and learning enables students who need extra reinforcement in their learning to see, touch, hear, and move, sometimes simultaneously, in their learning activities. Reading, for example, requires the ability to make links between visual and auditory inputs so that information can be processed and meaning can be constructed.

> If these links are taught in a multisensory way – using visual, auditory, kinaesthetic (speaking/writing) and tactile channel – then neural pathways can be developed (or strengthened) within the brain, in particular making better connections between the left and right hemispheres.
>
> (Kelly & Phillips, 2011, p. 25)

The principles of multi-sensory teaching that apply to language work also apply to the mathematics field, for example, introducing new mathematical concepts and processes using concrete materials, diagrams, pictures, and verbal explanation. Progress should be carefully monitored at each stage, checking that a particular concept has been thoroughly mastered and understood before moving on to the next step. In the same way, where young children experience difficulty performing tasks that have to be completed in a particular order, it can be very helpful for an adult or more experienced 'other' to carry out a 'think-aloud' whilst modelling the subtasks in sequence. Examples of this might be the subtasks involved in tying shoelaces or clearing up paint pots and brushes after an activity session.

> Using a multisensory approach employing as many senses as possible, simultaneously, will aid automaticity and speed of retrieval by enabling each mode of information to be stored in its specific location in the brain.
>
> (Kelly & Phillips, 2011, p. 25)

Phonological awareness training

When children are very young, it may be difficult for them to realise that speech can be broken down into individual words or that words

can also be broken down into sounds. Phonemic awareness develops only when there is good experience of speaking and listening. It can be encouraged by playing rhyming games, making up nonsense rhymes, repeating rhyming strings, and playing other games that require the manipulation of sounds. Hatcher and Snowling (2002) outline examples of phonological awareness training such as rhyme activities, identifying words as units within sentences, syllable awareness, and blending tasks.

As Hatcher and Snowling comment, whilst it is important to train phonological awareness, it is also important to establish the relationship between sounds and written forms of words. Interventions that rely exclusively on training in phonological awareness are less effective than those that combine phonological training with print and meaning in the context of sentences in text. Interventions that address difficulties in coordination, personal organisation, directionality, balance, and patterning may also be needed for some students.

Acquiring reading and writing fluency

At almost any age, paired reading arrangements can enable dyslexic individuals to gain more experience in reading ('reading mileage': Clay, 1993, 1998) to enable greater experience in reading and in visual tracking of the text in order to increase word identification, knowledge of letter/sound combinations, and use of contextual information and inference. Students might be encouraged to choose reading material of high interest to themselves, irrespective of its readability level, and both children might read out loud together, with the reading partner modulating his/her speed to match that of the dyslexic learner. Alternatively, children might be encouraged to use recordings of books that they really want to read, tracking through the text with their eyes while listening to the recording.

Effective use of audiobooks

As Wearmouth (2021) notes, in recent years there has been a rapid growth in audiobook sales. From a review of the literature, Best (2020, p. 2) concludes that engagement with

audiobooks can influence reading skills and enjoyment. For example, disengaged boy readers are more than twice as likely to say that they read fiction on screen compared with their more engaged peers (Clark and Picton, 2019). Recordings of higher level texts can give struggling readers access to content more appropriate for their age and interests. Listening to audiobooks can be private, so if a learner wants to 'read' a lower age-related book peers will not be aware of this. Books are available in a variety of formats, including CD, MP3, and downloads, optical character recognition (OCR) devices – which enable text to be scanned into a computer or handheld unit and the scanned text then read aloud through a speech decoder – and speech synthesizers/screen readers that display and read aloud text on a computer screen, including text that may have been typed by the student (Mitchell, 2014). Many screen readers are now available as free apps for tablets and smartphones, and have been included as a standard feature on some e-readers. The British Dyslexia Association (n/d) notes:

> Many dyslexic people have found that reading apps for mobile phones, and e-readers, such as a Kindle, enable them to read for pleasure. An ordinary page of text can be split into several pages, and you can adjust the font type, size and spacing, and the brightness of the screen.[9]

The charity Calibre Audio was established in 1974 with the express purpose of making audiobooks available free to individuals who, for a variety of reasons, have difficulty accessing print materials.[10] An overview of the range of audiobooks from the charity is available at https://www.calibre.org.uk.

Another site that offers a very wide range of audiobooks for children is https://www.audible.co.uk/cat/Childrens-Audiobooks-Audiobooks/19376662031?source_code=M2M3oDFT1BkSH1015140067&ds_rl=1235677&ipRedirectOverride=true.

In terms of writing, allowing students to dictate their thoughts onto a digital recorder and then transcribing them for him/her, or allowing him/her to dictate thoughts to the teacher/an older child/ the parent, in the first instance is a coping strategy. Encouraging the child to listen to the recording of his/her own thoughts and then write the text from this is one way to separate out the conceptual thinking around content and the mechanical aspects of writing with which the child is likely to experience difficulty.

Learners might also be provided with writing frames to support extended writing and encourage logical sequencing (Wray, 2002). Such frames provide a structure of a planned text and can be written either for, or in discussion with, learner writers. For older learner writers, the BBC has produced some very useful materials to support the writing process in its 'Skillswise' series.[11]

'Metacognitive' strategies

'Metacognitive' strategies can also help dyslexic and other students to think about their own thinking processes so that those who experience difficulty in particular areas of learning can develop alternative routes to accessing these areas. 'Mind-mapping' (Buzan, 2000) encourages learners to produce a visual representation of all those areas to be covered in the text before beginning on the written task and is an example of one way to develop a structure for producing extended text.

Coping strategies

Research (Florian & Hegarty, 2004) stresses the motivational value of computer-assisted learning, for example, word processing, which can increase the time that students are willing to practise writing. Spellcheckers can remove much of a learner's inhibition about writing that comes from poor spelling. Drafting and correcting becomes less laborious and the printed copy can be corrected away from the machine by the student or the teacher and improved versions created without difficulty. Everything can be saved and reused easily, allowing work to be done in small amounts. Presentation is improved; when the final version is printed it is legible and well presented. Optical comfort is also important. A choice of screen colours can be helpful to students.

Visual discrimination/spatial analysis

Strategies to enable learners to cope with particular difficulties in the area of spatial analysis and visual discrimination in the classroom might include keeping all visually presented materials simple in format and uncluttered by excessive stimuli, and assisting the student in planning and organising assigned tasks written on paper by providing visual cues and step-by-step instructions (Wearmouth, 2009). When giving directions, it is often helpful for teachers and others to be specific and use concrete cues. New concepts might be introduced where appropriate by beginning with the identification of individual parts and moving to integrated wholes.

'REASONABLE ADJUSTMENTS': EXAMINATION CONCESSIONS

Where a young person has a formal assessment of severe dyslexia, it may be the case that this is interpreted as a disability under the terms of the 2010 Equality Act. If this is the case then, as discussed in Chapter 10, s/he is entitled to 'reasonable adjustments' to enable access to the school or college curriculum, including internal and external examinations. The school might give internal examination concessions (extra time, answers in note form, oral test to support written examination, use of word processor in coursework, examinations, etc.) and 25 per cent additional time. Examination papers might be duplicated so that the learner can see both sides of a page at the same time, enlarged or printed on coloured paper, along with the use of highlighting pens to help with the analysis of questions. Guidelines for access arrangement during external examinations have been issued by some qualifications bodies to ensure compliance with the 2010 Equality Act, for example, the Joint Council for Qualifications (JCQ) (2021a)[12] in relation to secondary students.

We discuss the issue of access arrangements during external examinations in more detail in Chapter 10.

MARKING STUDENTS' WORK

In school there may be considerable differences of opinion about the extent to which corrections should be made to a script that contains very many mistakes. Before deciding how to mark individual

students' written work, teachers new to a school would be well advised to find out about the school's marking policy. On the one hand, it can be argued that, for some students, repeatedly receiving back scripts covered with marks indicating errors is very demoralising. On the other, there has to be a rational, structured approach to ensuring that students make progress in recognising mistakes and learning how to correct them. Teachers may feel it is appropriate to encourage students to proofread their own, or peers', work before handing it in, and/or, perhaps, to correct only words or sentence structure with which they feel students should already be familiar.

MODERATE LEARNING DIFFICULTIES

The *Statistical first release* document for January 2021 indicated that a high proportion of young people on SEN support, approximately 20 per cent, had moderate learning difficulty (MLD) as a primary type of need and 10 per cent of students with statements or EHC plans (DfE, 2021b). However, this term is not entirely straightforward. As Fletcher-Campbell (2005) comments, young people identified as having MLD have a very general difficulty in learning. In DSM-V (APA, 2013, p. 31), learning difficulties are termed 'intellectual developmental disorder' and are

> characterized by deficits in general mental abilities, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience.

Apart from this, there is no evidence that they have particular learning characteristics in common. Learners are individuals, with individual needs, strengths, and interests.

Translated into the context of settings, schools, and colleges, young people who experience MLD are likely to have attainments well below expected levels in all or most areas of the curriculum, despite appropriate interventions (Hayes & Whittaker, 2016):

- acquisition of basic literacy and numeracy skills;
- understanding concepts;
- delay in acquisition of speech and language;
- low self-esteem and self-efficacy ('I can do');

- low concentration levels; and
- under-developed social skills.

Mental 'abilities' (see Chapter 10) are measured by IQ tests. On a formal norm-referenced test that may be, for example, of various aspects of intelligence, reading accuracy, speed of handwriting, and so on, the mean (average) score is 100. On this kind of assessment, an individual score below 85 is in approximately the lowest 16 per cent of the population as a whole. A score of approximately two standard deviations below average represents a significant cognitive deficit. This is typically an IQ score of 70 or below (see Chapter 10). A score below 70 is in approximately the lowest 2.1 per cent. Once a learner's difficulty in a particular area of functioning has been recognised, for example, in relation to an artifice such as a norm-referenced intelligence test, it is not clear what further purpose the label serves. Provision needs to be made in relation to individual learners' particular needs, not to the assumed needs of a group labelled 'MLD'. It is important to stress again that learners are individuals, not simply a member of a homogenous group labelled 'MLD' students.

MEETING STUDENTS' LEARNING DIFFICULTIES

There is no single model of learning about which everyone is agreed. However, in thinking about how to approach structuring learning programmes of young people who experience difficulties, it can be useful to take into account a number of frameworks that have been in existence for some time.

Applications of behaviourist learning theories

As discussed in Chapter 4, behaviourist theories of learning assume that knowledge and skills can be broken down into learning hierarchies that can be taught to mastery level in small stages in a predefined sequence, with one stage building on from the one below. Learning can be reinforced through different types of reward that can be tangible or take the form of verbal praise and encouragement, or something else. Two examples of hierarchical frameworks

that are often still used to support the conceptualising of structured approaches to teaching knowledge and skills for learners with MLD and, often, more serious degrees of difficulty in learning, are Bloom's (1956) taxonomy and Haring's (1978) learning hierarchy.

Bloom's taxonomy

Bloom's Taxonomy, created in 1956 (Bloom & Krathwohl, 1956),[13] and revised in the 1990s (Anderson et al., 2001)[14] is a hierarchy of six levels of thinking that can be very useful for teachers in designing tasks, preparing questions for discussion with students, and providing feedback on students' work. In the bullet points below, the first term is from the original taxonomy, and the second from the revised version:

- Level I Knowledge/Remembering, the lowest level: memory of previously learnt material that is demonstrated by recalling fundamental facts and basic concepts;
- Level II Comprehension/Understanding: understanding of facts and ideas that is demonstrated by organising, comparing, interpreting, and describing;
- Level III Application/Applying: solving of problems in new situations that is demonstrated by applying new knowledge, techniques, and rules in a different context;
- Level IV Analysis/Analysing: Examining information and identifying motives or causes that is demonstrated by making inferences and finding evidence to support generalisations;
- Level V Synthesis/Creating[15]: Compiling information in a novel way that is demonstrated by combining elements into a new pattern; and
- Level VI Evaluation/Evaluating: the highest level. Presenting and defending opinions that is demonstrated by making judgments about information or validity of ideas based on given criteria.

Use of Bloom's hierarchy as a framework to differentiate teaching

Hayes and Whittaker (2016, p. 56) provide a very useful illustration of how Levels I to IV of this hierarchy might be used to provide a

framework for differentiating teaching of the plot and key themes of the play *Romeo and Juliet* to be appropriate for students with MLD:

- Level I Knowledge/Remembering: can students remember the key points in the plot and recall which characters were involved?
- Level II Comprehension/Understanding: can students explain why the plot unfolded the way it did?
- Level III Application/Applying: can students illustrate how suspense is created throughout the play?
- Level IV Analysis/Analysing: how is dramatic tension created at the various turning points in the play through Shakespeare's use of language?

HARING'S LEARNING HIERARCHY

In Haring's learning hierarchy, the learner is seen as needing to go through four stages in order to be fully able to understand and apply a newly learnt skill or piece of knowledge (Haring et al., 1978)

1. **Acquisition**. The student has begun to learn how to complete the target skill correctly but is not yet accurate or fluent in the skill. The goal in this phase is to improve accuracy.
2. **Fluency**. The student is able to complete the target skill accurately but works slowly. The goal of this phase is to increase the student's speed of responding (fluency).
3. **Generalisation**. The student is accurate and fluent in using the target skill but does not typically use it in different situations or settings. Or the student may confuse the target skill with 'similar' skills. The goal of this phase is to get the student to use the skill in the widest possible range of settings and situations, or to accurately discriminate between the target skill and 'similar' skills.
4. **Adaptation**. The student is accurate and fluent in using the skill. He or she also uses the skill in many situations or settings. However, the student is not yet able to modify or adapt the skill to fit novel task-demands or situations. Here the goal is for the student to be able to identify elements of previously learnt skills that he or she can adapt to the new demands or situation.

Applying Haring's (1978) learning hierarchy

As Macdougal et al. (2010, p. 108) comment, Haring et al.'s hierarchy is a tool that can serve as 'a dynamic interface between instructional activity and student competence (Burns et al., 2008, p. 1153) by guiding educators to select appropriate academic interventions based on the student's current stage of learning':

At the acquisition stage teachers or other adults might:

- demonstrate the target skill and model an approach that will lead to acquiring that skill, for example, demonstrating ways to solve mathematics problems. Students will then have models to follow;
- praise and encourage the effort that students have made.

At the fluency stage teachers or other adults might:

- structure learning activities so that students have the opportunity to respond and participate;
- give students frequent opportunities to repeat the newly acquired skill and practise the skill in context to solve problems;
- give students feedback on the fluency and accuracy of what they have achieved; and
- praise and encourage students for increased fluency.

At the generalisation stage, teachers or other adults might:

- structure academic tasks to ensure that the student uses the new skill regularly in tasks;
- encourage, praise, and reward students for using a new skill in different contexts;
- give students practice items to ensure that they can correctly discriminate between similar skills;
- work with parents and families to identify ways in which students can practise skills in school; and

- give students opportunities to review and practise new skills to ensure they are maintained.

At the adaptation stage, teachers or other adults might:

- help students to voice the core element(s) of new skills that they can modify to address unfamiliar tasks and situations. For example, as Haring et al. (1978) comment, fractions, ratios, and percentages relate to the 'big idea' of the part in relation to the whole;
- ensure students have opportunities to practise the target new skills, with minor modifications, in new contexts, offer formative feedback, and reward effort and success; and
- encourage students to set their own goals for adapting newly learnt skills to different situations.

CONSTRUCTIVIST APPROACHES

As is also noted in Chapter 4, instead of learners being seen as a container to be filled by teachers and others, constructivist approaches rather assume that learners are proactive in interpreting and constructing their understandings of the world.

PIAGET'S CONSTRUCTIVIST THEORY OF LEARNING

In Chapter 4, we discussed the work of Piaget (1954, 1964, 1969) who concluded, from observations of his own children, that there were four universal stages of learning: sensorimotor (0–2 years), pre-operational (2–7 years), concrete operational (7–11 years), and formal operational (11+ years). We also noted some of the criticisms of his work, for example, that development occurs as a continuum rather than in discrete stages. Thinking about learning as a continuum from the sensorimotor to the formal operational stage can be very helpful in considering how to structure activities and tasks suitable for young people who experience difficulties in learning. To give just one example: it is obvious that some learners will require

access to concrete materials for much longer than others in order to develop new concepts and skills. The assumption that all young people should be able to manipulate ideas in their heads and engage in abstract reasoning from the age of 11 is likely to do a great disservice to learners with difficulties in learning.

JEROME BRUNER'S 'MODES OF REPRESENTATION'

As also discussed in Chapter 4, a different, but in some ways related, way to conceptualise learners' progress as they develop their conceptual understanding of the world is through Bruner's (1966) three modes of representation of reality used by humans as they develop their conceptual understanding of the world: 'enactive', where we 'do' and then we understand and know; 'iconic', where we understand reality through visual representations of the real thing; and 'symbolic', where we understand and can use abstract representations of reality. Like Piaget's model above, these modes move from the concrete 'learn by doing' to the abstract. Young people's learning involves becoming more proficient in each of these increasingly complex modes.

As Grauberg (2002) notes, one common feature that can be readily identified in children who experience cognitive difficulties is weakness in understanding and remembering that a symbol can represent something else, for example, something concrete or an action.

Whilst these three modes appear to imply that learning occurs in discrete stages, it is, of course, continuous. Children may experience difficulty at any point in their development. Those who experience difficulties in cognition are very likely to need much more time to absorb and understand new concepts with representation more through concrete objects if necessary, using an enactive mode to learn by doing.

Bruner's model can also be a very useful framework for conceptualising how to plan differentiated activities to meet learning objectives for a range of young people in classrooms.

LEV VYGOTSKY AND SOCIAL CONSTRUCTIVIST APPROACHES

In Chapter 4, we also discussed one of the most well-known concepts for which Vygotsky's work is famous: that of the zone of

proximal development (ZPD) to explain the process of learning in a social context.

Applications of social constructivist approaches in supporting learning

The ZPD is, effectively, the next step in learning and the range of knowledge and skills that learners are not ready to learn on their own but can learn in interaction with more informed and experienced others. The role of the more informed other is central in this. As Kozulin (2003, p. 19) comments, in terms of a human mediator a central question tends to be 'What sort of involvement by a more informed/ expert other can enhance a learner's performance?'

A more informed/expert other may 'scaffold', that is provide structured support for new learning (Wood et al., 1976) through the ZPD based on his/her knowledge of the learner and the learner's current level of knowledge and understanding of the topic. Learners need scaffolding from more knowledgeable others, but not too much. Learning in the ZPD is also about participating, for example, having the chance to behave as a reader and writer alongside other readers and writers. This issue is really important in relation to young people with difficulties in learning. Learning is often suffused with emotion. Feelings are very powerful in facilitating or inhibiting learning. Experiences of success are often pleasant and/or exciting, but the feeling of failure is often upsetting and/or worrying, especially when it occurs frequently (Wearmouth et al., 2005). Feelings are therefore highly significant in supporting, or inhibiting, learning. Getting a good balance is crucial. Without a sense of active participation of the self as a contributing learner in the classroom, students are not included. They fail to learn properly and are likely to be marginalised (Wearmouth et al., 2009). It is important to note that students' learning and behaviour are mediated through the kind of relationship s/he has with a teacher. This relationship both develops over time and is

influenced by the teacher's sense of a student's value and worth.

Obvious implications of this view of learning is that all learners, including those who experience difficulties, need:

- time for focused talk between themselves as learners and the more informed other(s), usually the teacher(s). Most important is a safe space for interaction between themselves as learners and peers to enable 'interthinking' (Littleton & Mercer, 2013), that is, discussion of new learning to clarify and extend their understanding of new concepts and knowledge;
- the time to reflect on what they make of what they have just learnt and the chance to ask questions of the more informed other(s); and
- respectful relationships among learners and between learners and adults in the learning environment. In relation to young people with particular needs in education, it is absolutely essential that they, along with all other students, feel safe in talking about themselves as well as asking and answering questions (Bishop et al., 2014) and are not humiliated by the reactions of the teacher or peers.

(Adapted from Wearmouth, 2017, pp. 17–18)

ADDRESSING DIFFICULTIES IN COMPREHENSION

In Chapter 5, we differentiated between receptive and expressive language skills. In terms of written text, firstly, it is important to be able to judge the level of difficulty, for example, of any sentence length and complexity, word length and familiarity, and the degree of conciseness in the explanation of concepts. It is also important to consider carefully (Lunzer & Gardner, 1979) the interest level of the text and/or prior knowledge of the subject matter. If students are interested in what they are reading or are familiar with the subject material, they can cope with more difficult text. Further, more

students can understand higher level concepts if ideas are expanded and explained step by step.

Strategies for developing reading comprehension can include adding pictures, subheadings, and summaries to the text and teaching students to take notes, underline key passages, or write summaries. Students can be taught to scan the text before reading in depth, including focusing on pictures, diagrams, captions, subheadings, and highlighted words (Wearmouth, 2009, pp. 42–43). They can be taught to think consciously about the text as they read: whether it fits in with what they already know, whether they have understood it, or what questions they might ask themselves about the meaning of a text as they read it through. The amount read before questions are raised can be shortened. This may mean a page by page reading or even a paragraph by paragraph reading. Close consideration must be given to the constitution of student groups in this case. As students pay more attention to the messages conveyed by text, the amount of text read before questions are asked can be lengthened. Groups of students can be encouraged to share the reading of a book and then discuss topics such as: how did the main character feel? Has anything like this ever happened to you? What happens next? Cloze can be used to make sure that students are reading for meaning. Here every fifth word or so is deleted from the text and the student is asked to fill in the gaps with a suitable, meaningful word.

Often students need to gain more experience in reading in order to increase word identification, knowledge of letter/sound combinations, and use of contextual information and inference (Duke & Pearson, 2002). Excellent ways in which to develop these skills and the related writing skills of language structure, organisation of thought, and creative writing is to follow the text with the eyes while listening to a recording (which has to be word perfect), 'paired reading' (Topping, 2001), or 'reading buddies'. We discuss the issue of support for learners' literacy needs further in Chapter 9 below.

MEMORY PROBLEMS

Within the area of moderate learning difficulties, very poor memory is a problem for a number of students. There are a number of common reasons for this. For example, students may not have grasped the information clearly in the first place. They may not have linked the

new information to previous knowledge sufficiently. Or they may not have distinguished new knowledge from what is already known, so that the new information interferes with the old. It may not be a good idea, therefore, to introduce concepts with clear similarities together. For example, if we were to introduce a donkey and a pony at the same time and tell the child that the donkey is the one with the big ears, this could confuse the child forever afterwards about which is which.

There are a number of frames of reference against which to conceptualise what happens in the human memory system. In one, memory is seen as having two distinctive parts: long-term memory and short-term or 'working' memory. Long-term memory itself is also often seen as consisting of two parts: knowing *that* (declarative or semantic memory) and knowing *how* (procedural memory). There is clearly a big difference between knowing a fact, for example, a date, and knowing how to do something. Memory can be accessed through recall or through recognition. Of these, recognition is usually easier than recall, although if the context in which the initial learning occurred is very similar to the context in which recall is needed and there are strong memory cues, then recall can be easier.

Many students with short-term memory difficulties have problems absorbing and recalling information or responding to and carrying out instructions within a busy classroom situation. They may find it difficult to copy from the blackboard as they are unable to memorise what they have seen and transpose it to the paper on the desk. In addition, they are required to rotate this visual image through 90 degrees from the vertical to the horizontal and also to change the size of the letters involved. Young children have to learn sequences of certain items relating to particular areas that are important for everyday living: letters of the alphabet, months of the year, days of the week, and numbers, for example. There are many students who, even in secondary schools, cannot recite either the alphabet or the months of the year in the correct order.

Difficulties in this area, however, can be improved with training. As Hayes and Whittaker (2016, p. 72) note, memory is a process that requires a number of prerequisite skills. We need to: 'perceive that something is important', 'pay attention to the information,' link it to previous knowledge, and be able to retrieve it when we need it.

Therefore, we need to ensure that learners, especially those identi-fied as experiencing learning difficulties, can:

- see it visually – through demonstrations, pictures, photographs, film and diagrams;
- experience it themselves through role play, action, experiments, etc;
- understand why it is important and meaningful; and
- have repeated access to the target information.

The learner should be able to see, hear, say, and, if possible, touch the materials to be learnt. This reinforces the input stimuli and helps to consolidate the information for use, meaning, and transfer to other areas. Teachers can keep verbal instructions clear and concise and ensure students are attending before teachers start to speak. It can help to preface instructions with a warning (for example, 'Peter, in a moment I am going to ask you') to ensure that the student is ready to listen. They might also encourage students to repeat back key points as well as to talk through tasks in their own voice to help to direct their motor movements and try supplementing auditory ver-bal material with visual cues and practical demonstrations. In some cases, written checklists or pictorial reminders may be beneficial (Wearmouth, 2009, p. 48).

In terms of numbers of objects to be recalled, teachers and/or families might try increasing the span of items that are to be remem-bered and the length of time between presenting the sequence and asking for recall. As memory span increases, an intervening task can be given between presentation and recall. They might also try gradu-ally increasing sequences of instructions, beginning with one or two only: 'Please go to the cupboard and get some pencils', and subse-quently, perhaps: 'Please go to the cupboard, get some pencils, give one to Jane and one to Aaron'. They could ask the student to give a verbal message to deliver to another teacher, secretary, or adminis-trator, and increase the length of the message as the student becomes successful. It is important to encourage the student to repeat the instruction before carrying it out and use his/her own voice to aid his/her memory. After reading a short story, they could make a point of asking the student to identify the main characters, sequence of events, and outcome. They might also encourage students to think

up their own mnemonic and visualisation techniques and, if possible, both together, or to repeat aloud and rehearse items to be remembered and use a multi–sensory mode of learning through oral, visual, auditory, and kinaesthetic modes.

Understanding the moderate learning difficulties of one student

The school environment/curriculum can present a range of barriers to participation and learning for learners with MLD. 'George', for example, an ex-student of the current author, had been identified as experiencing MLD almost from the beginning of his school career. He had been assessed as requiring a Statement of need, and then an EHC Plan, from the early years of his education, and had been educated in mixed-attainment mainstream classes, including at secondary school, since the age of five. His overall developmental delay had resulted in attainments significantly below expected levels in most areas of the curriculum. He found it difficult to mix with his peer group and, by the age of 16, was still very needy, with an over-reliance on adult help support from his TA. In summary, throughout his schooling, George experienced difficulties in:

- understanding basic concepts;
- acquisition of basic skills in reading, writing, and numeracy;
- confidence (he lacked the self-belief to develop the skills he did have); and
- limited communication skills and logical thinking. As a result of difficulties in learning, communicating, and thinking logically, young people may well display behaviour seen as anti-social and challenging if their needs are not fully recognised and understood. With two other students and without thinking about the consequences to himself and his peers, he stole some laptops from a class where he was being taught word processing.

He tried to sell them openly at the local railway station without realising that this would inevitably be reported – which it was, and he was caught 'red-handed';

- immature social skills (every lunchtime he would come to the learning support room to be with adults rather than try to engage with peers outside); and
- poor long- and short-term memory, which meant he had a problem both remembering what had been taught and also what to bring to school for PE and cookery lessons.

In his secondary school, a teaching assistant spent around 12 hours per week supporting George in his mixed-attainment classes, but this was more a 'bolt-on' than the result of careful pre-planning.

George survived his secondary education – just! In retrospect, and in his mainstream classes, especially in secondary school, a much more clearly defined approach to appropriate differentiation should have been planned for him. This should have included individual learning outcomes matched to his own prior learning and designed to build on what he already knew, understood, and could do, but with sufficient challenge so that he could make progress. As it was, the tasks he was expected to complete were often not achievable. Such tasks could have been broken down into small steps to identify gaps in his prior learning and point to future new learning. He often found that the teacher moved on too quickly before he had a chance to reflect on what he knew. He would have benefited from more opportunities to handle concrete objects, see pictures and diagrams more than continuous teacher talk. George really needed multiple examples of new concepts, carefully devised 'scaffolding' from a teacher, TA, or peer with that scaffolding gradually withdrawn as he became more confident with the task or concept at hand, and lots of opportunities, certainly more than most of his peers, to practise newly learnt skills of knowledge.

A very useful handout on differentiated activities designed to meet the identified needs of learners with MLD has been prepared at the Institute of Education in London (now part of University College, London) and is available at http://dera.ioe.ac.uk/13820/2/handouts3.pdf (accessed 10.02.18).

ADDRESSING DIFFICULTIES IN THE LEARNING OF MATHEMATICS

Much teaching and assessment in the area of mathematics takes place in the context of a symbolic representation of mathematics, that is, through written text and pictures (Rogers, 2007, p. 2). In reflecting on problems associated with learning mathematics, it is useful to consider what learners need to be able to do to be successful. Chinn (2012, p. 9) cites the Russian psychologist Krutetskii (1976) in setting out these skills as an ability to:

- 'formalise maths material', in other words to think in the abstract rather than in 'concrete numerical relationships';
- make generalisations and 'abstract oneself from the irrelevant';
- operate with numerals' as well as other symbols;
- conduct 'sequential, segmented, logical reasoning';
- cut short the 'process of reasoning';
- reverse mental process;
- be flexible in thought; and
- use spatial concepts.

It should be clear why some students experience problems from the discussion of difficulties in information processing, memory, sequential reasoning, use of symbols, moving from concrete to abstract thinking, and so on, related to cognition and learning in this chapter. However, solving learning problems in mathematics is not a straightforward matter of importing more one-size-fits-all cures. Chinn (2012, p. 9) notes that:

> maths can be a written subject or a mental exercise. It can be formulaic or it can be intuitive. I[t] can be learnt and communicated in either way [...] Maths can be concrete, but fairly quickly moves to the abstract and

> symbolic. It has many rules and a surprising number of inconsistencies. In terms of judgement and appraisal, maths is quite unique as a school subject.

Many children appear to adopt mathematical symbols and algorithms without having grasped the concepts that underpin them (Borthwick & Harcourt-Heath, 2007). While activities involving reading and writing numbers may tell us something about children's ability to read and write numbers, they do not necessarily tell us anything about children's conceptual understanding of 'number-ness'. Learners' ability to understand symbolic representation depends on understanding of the first-hand experience to which the symbolic representation refers. In the case of younger learners this may involve, for example, the handling and counting of everyday items. Learning to use number symbols is likely to occur simultaneously with acquiring the alphabetic principle and sound–symbol correspondence in literacy acquisition and, as Grauberg (2002) comments, 'Where is the "f" in 5?' It is possible to use other number systems, for example, tally charts, first, where one bundle represents five and is clearly made up of five. Rogers (2007, p. 13) notes that, if there is a weak conceptual framework for understanding numbers in the early years on which to begin formal mathematics teaching, it will:

> make it both difficult to engage children (Department of Education and Science, 1989) and to correct later (Nunes et al., 1997). It is also well documented that such difficulties soon become compounded, resulting in distress and further delay (Adult Literacy and Basic Skills Unit, 1992). Attention needs to be paid to the negative effects of incomprehension of a prominent part of the mathematics curriculum in which young children are involved on a daily basis. It may be that such incomprehension prompts the early lack of confidence in mathematics that characterises further failure and poor problem solving during the later school years. They can often learn to count up and down 'in ones' and can take part in counting games and activities. However, understanding that a number, for example five, is not just the last number in the series 1–5 (the ordinal principle), but also means the whole set of five (the principle of cardinality) is another matter.

Pictorial symbols or icons are clearly different from abstract symbols used at the symbolic stage of reasoning in Bruner's framework.

If we take the example of mathematics learning in schools, lack of symbolic understanding can lead to difficulties in the written recording of number work, relational signs: 'plus', 'minus', 'equal(s)', place value and 'zero', money and time, as Grauberg (2002, p. 5) notes.

Relational signs: 'plus', 'minus', 'equal(s)'

Adding and subtracting both imply actions. Without an understanding of what the action is there is little point in trying to encourage the use of the symbol; '=' is often interpreted to children as 'makes' but, as we are all aware, a child's notion of 'makes' is clearly not what the symbol '=' means mathematically.

Very great care must be taken in working out ways to support children's understanding by making clear links from one small step to the next. Primary schools in particular have a lot of equipment that can be used to play games in adding, subtracting, and balancing. Bearing in mind Bruner's three modes of representation, for some children it might be important to use concrete aids to establish number learning, for example, Cuisenaire rods and/or an abacus, for much longer than for other children. A major question is how to move from the act of adding, taking away, or balancing to competent use of the abstract symbols. One way to do this might be to spend time thinking about ways in which children will move into and through the iconic mode of representation and to encourage them to devise their own symbols for the actions first so that the icon visibly represents their own understandings.

Common problems: the examples of place value and 'zero'

Difficulties with the concept of place value and 'zero' can be experienced by students right to the end of their education.

Common conceptual difficulties in mathematics

As the head of learning support in an upper (13–18) school, I observed numbers of students in mainstream lessons struggling with mathematical concepts that regular mainstream

teachers assumed they had grasped a long time before. In their mathematics lessons I was still trying to support them to develop a basic understanding of place value. In other areas of the curriculum, they were expected to cope with the concept of hundreds, thousands, and millions, which they found so frustratingly complex and difficult that their behaviour became disruptive. An example is geography or social studies' lessons where population density was expressed in thousands per square mile. Some students could not handle the concepts of thousands and millions competently and confidently, either in an ordinal or cardinal sense, and became very frustrated.

Zero is another problematic concept, mathematically. I was once asked by 14-year-old students in a mixed comprehensive school how nought multiplied by a number could possibly equal nought. How could a number suddenly equal nothing? I replied by taking a handful of nothing and putting it down on the desk 44 times to prove the point.

(Wearmouth, 2009, p. 138)

Without understanding the whole concept of place value, the use of zero as a place holder in a multi-digit line is difficult to comprehend for some students. One way to start to address problems with place value might be to continue to use concrete equipment such as Dienes materials – unit cubes, 'longs' of 10 cm cubes, and 'flats' of 100 cm cubes – for much longer than the teacher might have anticipated, providing that this can be done without embarrassing the child(ren). For example, 54 might be written down at first as 50 with the 4 superimposed over the 0; 504 would be written down as 500 with the 4 superimposed over the last 0. Alternatively, as Grauberg (2002) notes, the numbers may be written on transparencies and then superimposed.

UNDERSTANDING NUMBER-NESS

Teaching numbers in the early years through the use of number sequences seems to be common in the UK and the USA (Grauberg, 2002).

In some other countries in Europe and the Far East, for example, Japan, the preference is for emphasising recognition of small quantities without counting. Recognising a small number, for example, four, as a quantity involves one operation of matching a sound symbol or visual symbol to an amount. This seems, logically, easier than recognising four from a number sequence. This latter involves remembering that four comes after three and before five, and simultaneously counting up to the total amount. It will take many concrete activities in a variety of different contexts before a child with cognitive difficulties understands the concept of 'number-ness':

> which means the concept of 'twoness', 'threeness', 'nness'. Through his [*sic*] experience with many different materials we want him to see what is common to all (the fact that there are, for instance, 'two' of each) and we want him to learn to ignore what is irrelevant (e.g. size, colour, feel).
>
> (Grauberg, 2002, p. 12)

Time

'Time' is a complex concept for children to develop. As Piaget (1969) notes, it includes points in time, duration and sequence of events, frequency of events, and intervals between them.

Concepts of time vary, as Grauberg (2002) points out. Supporting a student to acquire a concept of time is a very different proposition from teaching him/her to tell the time. There is no constant point of reference in relation to many indicators of time. 'Late' can refer to a time in the morning, if a student should have arrived earlier, or to a point at night when, for example, that student could be early or on time. Our sense of the passage of time is not constant either. It often seems to distort depending on the activity and our engagement with, or enjoyment of, it. For example, the few days before a birthday often seem to young children to pass much more slowly than most other days.

Bruner's three modes of representation – enactive, iconic, and symbolic – again offer a framework for thinking about activities and approaches for students who experience difficulties in the acquisition of time-related concepts. Using a timer or some sort might help in the initial stages to enact the representation of time passing. Concentrating on the sounds emitted on striking a percussion

instrument themselves might encourage a sense of the frequency of events. To encourage the concept of sequence, a teacher might first organise an activity for children to act out a regular sequence of events in their own lives and then represent the sequence pictorially (Bruner's iconic mode of representation). These days, the concept of a visual timetable for use in schools with young children and older children who experience cognitive difficulties is quite common (Selikowitz, 2008).

To tell the time, use of a digital timer is a simpler option than a traditional clock face. However, there are other considerations. The hands of the traditional clock face can be seen to move in the context of the 12-hour cycle, but the numbers on a digital timepiece simply change (Wearmouth, 2009).

Addressing difficulties experienced by primary-aged pupils in mathematics

Riddick et al. (2002, p. 50) offer a number of suggestions about teaching primary-aged pupils with specific difficulties in mathematics:

- make sure they understand basic symbols = +, −, etc.;
- make sure they understand basic number language, e.g. subtract, multiply, etc.;
- repeat learning and revision of number facts;
- teach child to estimate a sensible answer;
- teach child to check their answer against the set question;
- be alert for reversals that lead to a child making a wrong calculation;
- practise counting forwards and backwards in sequences, e.g. in ones, then two, etc.;
- use pattern methods to teach number bonds;
- teach multiplication using table squares;
- use squared paper to aid correct setting out of calculations;
- give a sample strip with digits in correct orientation for checking reversals;

- use multi-sensory teaching; rehearse what has just been learnt with oral revision at the end of the lesson; and
- teach using logic rather than just rules so conceptual ability can be utilised.

'CONDITIONS' ASSOCIATED WITH MODERATE TO SEVERE LEARNING DIFFICULTIES: THE EXAMPLE OF DOWN'S SYNDROME

There are a number of what are often termed 'conditions' associated with some impairment of cognitive, including language, ability. One of these is Down's syndrome. Children with Down's syndrome tend to have a lower-than-average cognitive ability, often ranging from mild to moderate difficulties in learning. A small number have severe to profound mental disability. The average IQ of children with Down's syndrome is around 50 (Dykens & Kasari, 1997), compared with the average IQ of 100.

Language skills show a difference between understanding speech and expressing speech, and commonly individuals with Down's syndrome have a speech delay (Bird & Thomas, 2002). Fine motor skills are delayed and often lag behind gross motor skills and can interfere with cognitive development. Effects of the disorder on the development of gross motor skills are quite variable. Some children will begin walking at around two years of age, while others will not walk until age four. Physiotherapy and/or participation in other specially adapted programmes of physical education may promote enhanced development of gross motor skills.

A 'syndrome' is a group of recognisable characteristics occurring together. Down's syndrome (Down syndrome in the United States and some other countries) was first described in detail by an English doctor, John Langdon Down, in 1866. It is a congenital condition that randomly affects about one in 1,000 babies born throughout the world, male and female alike. A 'congenital' syndrome is one present at birth.

Down's can occur in any family of any race, culture, religion, or socioeconomic class. It occurs because each of the body's cells

contain an extra copy of chromosome 21. It can be identified in a foetus with amniocentesis during pregnancy, or in a baby at birth. It is chromosomal, not caused by anything the parents may have done before or during pregnancy.

In the United Kingdom, around 47,000 babies,[16] are born with Down's syndrome annually, although it is statistically much more common with older mothers. At maternal age 20, the probability is one in 1,450; at age 30, the probability is one in 940, at age 40, the probability is one in 85, and at age 45, it is one in 35 (Morris et al., 2003). There are also data to suggest that paternal age, especially beyond 42, increases the risk of a child with Down's syndrome (Fisch et al., 2003).

PHYSICAL CHARACTERISTICS

Down's syndrome is recognisable at birth because of the typical physical characteristics (Selikowitz, 2008). Common physical features include a small chin, round face, protruding or oversized tongue, almond shape to the eyes, shorter limbs, a single instead of a double crease across one or both palms, poor muscle tone, and a larger than normal space between the big and second toes. The medical consequences of the extra genetic material are highly variable and may affect the function of any organ system or bodily process. Health concerns for individuals with Down's include a higher risk of congenital heart defects, recurrent ear infections, obstructive sleep apnoea, and thyroid dysfunctions (Selikowitz, 2008). The incidence of congenital heart disease in children with Down's syndrome is up to 50 per cent (Freeman et al., 1998). Eye disorders are relatively common. For example, almost half have strabismus, where the two eyes do not move in tandem (Yurdakul et al., 2006). In the past, prior to current treatment, there was also a high incidence of hearing loss in children with Down's syndrome. These days, however, with more systematic diagnosis and treatment of ear disease, for example, 'glue-ear' (see Chapter 6) almost all children have normal hearing levels.

When some of the cells in the body are normal and other cells have trisomy 21, it is called mosaic. There is considerable variability in the fraction of trisomy 21, both as a whole and among tissues.

COGNITIVE DEVELOPMENT

Overall cognitive development in children with Down's syndrome is quite variable. It is not currently possible at birth to predict the capabilities of any individual reliably, nor are the number or appearance of physical features predictive of future ability. Children with Down's syndrome have a wide range of abilities, and success at school can vary greatly, which underlines the importance of evaluating children individually (Selikowitz, 2008).

Individuals with Down's syndrome differ considerably in their language and communication skills. It is common for receptive language skills to exceed expressive skills. Alternative and Augmentative Communication (AAC) methods (discussion above), such as pointing, body language, objects, or graphics are often used to aid communication.

Issues of derogatory terminology, inhuman treatment, and human rights

Some of the ways in which children with Down's syndrome were portrayed in the past and the treatment that some received which we would regard now as disgraceful and totally unacceptable illustrate a number of the issues related to human rights and values discussed already in this book. For example, owing to his perception that children with Down's syndrome shared physical facial similarities such as folds in the upper eyelids (epicanthal folds) with those of the Mongolian race as identified by the German physiologist and anthropologist, Johann Friedrich Blumenbach, John Langdon Down used the term *mongoloid*. He wrote in 1866:

> A very large number of congenital idiots are typical Mongols. So marked is this, that when placed side by side, it is difficult to believe that the specimens compared are not children of the same parents. The number of idiots who arrange themselves around the Mongolian type is so great, and they present such a close resemblance to one another in mental power, that I shall describe an idiot member of this racial division, selected from the large number that have fallen under my observation.
>
> (Down, 1866, p. 259)

With the rise of the eugenics movement in the first half of the twentieth century, a number of countries, including certain states in the USA, began programmes of forced sterilisation of individuals with Down's syndrome. 'Action T4' was a programme of the systematic murder of individuals with Down's syndrome and other comparable disabilities in Nazi Germany, for example (Lifton, 2000). Since the Second World War, however, laws relating to such sterilisation programmes have been repealed.

In 1961, a number of geneticists wrote to the editor of *The Lancet*, suggesting that Mongolian idiocy had 'misleading connotations', had become 'an embarrassing term', and should be changed (Gordon, 1961). *The Lancet* advocated using the term Down's syndrome. The World Health Organization (WHO) officially dropped references to mongolism in 1965 after a request by the Mongolian delegate (Howard-Jones, 1979).

Down's syndrome cannot be cured, but the learning and other difficulties associated with it can be addressed if people with the syndrome are offered appropriate help and if other people accept and include them. Above all, it is important to stress that children with Down's syndrome are individuals and vary in their abilities and achievements. The Down's Syndrome Association has a very clear view on this particular issue:

People who have Down's syndrome will have some level of learning disability. This means they'll have a range of abilities. Some people will be more independent and do things like get a job. Other people might need more regular care.

Like everyone, people who have Down's syndrome have:

- their own personalities;
- things they like and dislike;
- things that make them who they are.[17]

Although young people with Down's syndrome have features in common, they also closely resemble their parents and family. Any one

child will only have some of the characteristics associated with Down's syndrome. Each child has a unique appearance, personality, and set of abilities. The extent to which a child shows the physical characteristics of the syndrome is no indication of his or her intellectual capacity.

CHILDREN AND YOUNG PEOPLE WITH PROFOUND AND MULTIPLE LEARNING DISABILITIES

Children and young people with profound and multiple learning disabilities are individual human beings. Some may have autism or Down's syndrome. Others may have Rett syndrome, tuberous sclerosis, Batten disease, or another disorder. One common factor is experiencing great difficulty communicating. Mencap (n/d, p. 4) notes how many people with profound and multiple learning disabilities 'rely on facial expressions, vocal sounds, body language and behaviour to communicate'. Some people may only 'use a small range of formal communication, such as speech, symbols or signs'. Another factor is that learning is likely to be very slow. 'Short-term memory may well be very limited and children may need frequent repetition of the same concepts in the same situations' (ibid.). Some may not reach the stage where they can communicate intentionally. Many may find it hard to understand what others are trying to communicate to them. It is very important, therefore, that those people who support people with profound and multiple learning disabilities 'spend time getting to know their means of communication and finding effective ways to interact with them' (ibid.). Many people will also have additional sensory, physical and/or motor disabilities, or complex health needs.

For very many years, there was a general assumption that children with multiple and profound difficulties were ineducable. However, as we saw in Chapter 2, more recently there has been a realisation that they can learn throughout their lives if appropriate support is made available. In England and Wales, for example, the 1970 Education Act acknowledged the right of all children to an appropriate education, irrespective of the degree of difficulty in learning.

Encouraging communication skills in students with profound and multiple learning difficulties is really important. There are a number of ways in which students' can be encouraged and supported to

communicate with adults and peers. Some, such as AAC, we have discussed above. We discuss other ways, including electronic, below.

'INTENSIVE INTERACTION'

'Intensive Interaction' is aimed at facilitating the development of fundamental social and communication skills for children and young people with the most severe learning difficulties. The group for whom intensive interaction is appropriate may include some children with autism. We have noted previously how approaches to addressing difficulties associated with autism are often based on applied behaviour analysis and assume that learning to communicate can be broken down into subtasks that can be taught separately. Intensive Interaction adopts a rather different approach. It is based on the model of 'natural' interactions between caregivers and infants (Nind, 1999). One premise underlying intensive interaction is that communication is complex and holistic. Hence it favours the holistic model of caregiver–infant interaction for encouraging communication skills.

Rather than a closely structured, predetermined programme, intensive interaction is designed to support practitioners to adopt a holistic, nurturing, and problem-solving framework for communication (Yoder, 1990). The teacher (or other practitioner) begins by trying to 'connect' with the learner and developing into 'a familiar repertoire of mutually enjoyable interactive games and playful ritualised routines based on the learner's own preferences'. The teacher or caregiver modifies his/her facial expressions, body language, vocal and gaze behaviours, and so on to fit the rhythms of the learner's behaviour. The teacher/caregiver's behaviour deliberately responds to the learner as if his/her behaviour has 'intentional and communicative significance' (Nind, 1999, p. 97). The repertoire of playful routines provides a safe context for learning the conversational rules of turn-taking and mutual interactions (Field, 1979).

Using 'Intensive Interaction'

Jefferies et al. (2009, p. 756) describe a training video made of the way in which a therapist, Phoebe Caldwell, used

'Intensive Interaction' to engage very successfully with a young man, Gabriel:

> At the start of the film Gabriel was totally occupied with his own ritualistic behaviours, apparently 'locked into' his own world. But with Phoebe engaging in intensive interaction with Gabriel this quickly changed. His ritualistic behaviours, such as string or glove flicking, became signals or access points for Phoebe, and by joining in with these behaviours she began to interact with him, or as she put it 'learned his language'. By the end of the video Gabriel and Phoebe are shown sharing very close eye contact, smiling and laughing together. It was remarkable to watch and was very thought-provoking.

Further discussion and examples of this approach are available at https://thepsychologist.bps.org.uk/volume-22/edition-9/introducing-intensive-interaction (accessed 12.12.21).

'OBJECTS OF REFERENCE' AND SYMBOL SYSTEMS

'Objects of reference' and electronic banks of pictograms are forms of AAC that are also often used to assist children with varying degrees of cognitive difficulties to communicate.

'Objects of reference' refer to physical objects used to represent those things about which humans communicate: activities, events, people, ideas, and so on. These objects can be used as a 'bridge' to more abstract forms of communication such as a sign, symbol, or word. Objects of reference are often chosen because of their multi-sensory properties to give the individual a clue about what will soon happen, for example, a piece of soap to signify that washing is about to take place, or a seat buckle to signify a car journey. It is essential that the same item is always used to signify the same event.[18] The contexts in which various objects gain significance and meaning are different for different people. Park (2003) gives the example of Dawn, who has learnt to use a bottle of bubble bath as her object of reference for 'bath'. He also describes Janet, who likes to lie on a trampoline and uses a piece of the cushion material to ask someone to help her climb onto the trampoline in the garden.

An example of the use of pictograms for communication

Symbol-based language programs have been developed over many years, for example, by Widgit Software. Widgit has produced an array of software that uses pictorial symbols to support the development of communication skills. In some ways, we might see these as similar to 'icons' in Brunerian terms (see Chapter 4). Widgit symbols are intended to have a single, simple, and well-defined meaning and a consistent visual structure that can be used in a combined sequence to convey a broad meaning and build more precise information. 'Symbols can convey basic information in the same way that icons do, but by combining them, much more information can be conveyed'.[19]

Widgit Symbol Sets are collections of images designed to make the meaning of text clearer and easier to understand by providing a visual representation of a concept. According to Widgit, symbols can help support:

- communication – symbol communication books and devices can help people make choices and express themselves;
- independence and participation – symbols aid understanding which can increase involvement, choice, and confidence;
- literacy and learning – symbol software encourages users to 'write' by selecting symbols from a predetermined set in a grid;
- creativity and self-expression – writing letters and stories and expressing your own opinions; and
- access to information – all of us need accessible information and this should be presented in such a way that the reader can understand and use.[20]

The Symbol Set often follows a set of design 'rules' that enable the reader to develop his/her own receptive and expressive language skills (see Figure 6.1).
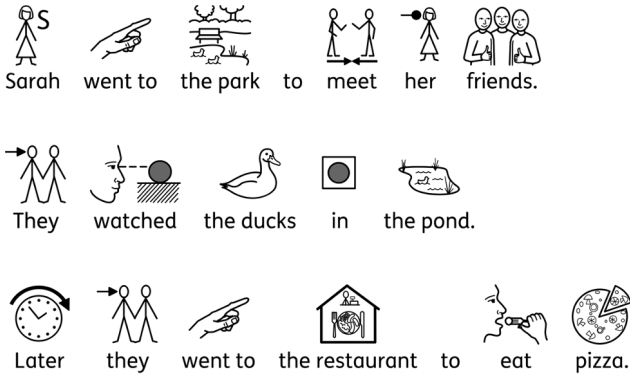
Figure 6.1 Widgit Symbol Set.
Widgit Symbols © Widgit Software 2002–2022, www.widgit.com.

SUMMARY

The frame of reference within which the term cognitive difficulties is used in the current Codes of Practice in both England and Wales is associated in general terms with information processing related to problem solving, language, perception and memory, and the development of concepts. Cognitive difficulties experienced by some learners clearly overlap with communication and interaction.

As practitioners, teachers need to bear in mind factors related to the individual child, to the condition (if one has been identified) associated with that child, the wider cultural and social factors, the curriculum, and the school context. The view that failure to learn can result from social arrangements that fail to support students' engagement with their learning as much as from attributes of individuals (Lave, 1993, p. 10) can lead to a very positive approach to overcoming the difficulties that are experienced. It has the advantage of giving teachers and students more control over learning in that appropriate attention to these areas can lead to improved student progress. Furthermore, teachers can have confidence that students will learn well if appropriate strategies are devised to address their difficulties and facilitate children's increased participation in school.

NOTES

1 https://icd.who.int/browse11/l-m/en#/http%3a%2f%2fid.who.int%2ficd%2fentity%2f2099676649 – accessed 11.12.21.

2 A phoneme is the smallest identifiable unit of sound in a language. For example, the word 'when' has three phonemes: /wh/, /e/, and /n/. The word 'went' has four phonemes: /w/, /e/, /n/, and /t/.

3 https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1008636089 (accessed 11.12.21).

4 www.bdadyslexia.org.uk/dyslexic/definitions – accessed 18.02.18.

5 The APA (2013) suggests at least 1.5 standard deviations (SD) below the population age-related mean, which translates to a standard score of 78 or less. This itself is below the 7th percentile.

6 The term 'scotopic' is often these days seen as inappropriate because this really means 'night vision'. Hence the condition is now often called 'Meares–Irlen syndrome/visual stress'.

7 https://thepsychologist.bps.org.uk/volume-18/edition-12/dyslexia-debate-continues – accessed 11.12.21.

8 n/d, https://www.bdadyslexia.org.uk/advice/children/how-can-i-support-my-child – accessed 11.12.21.

9 https://www.bdadyslexia.org.uk/advice/children/how-can-i-support-my-child/reading – accessed 11.12.21.

10 https://www.calibreaudio.org.uk/about/history – accessed 11.12.21.

11 www.bbc.co.uk/skillswise/0/ – accessed 23.02.18.

12 https://www.jcq.org.uk/exams-office/access-arrangements-and-special-consideration/regulations-and-guidance/ – accessed 07.01.22.

13 www.bloomstaxonomy.org/Blooms%20Taxonomy%20questions.pdf – accessed 11.12.21.

14 https://www.uky.edu/~rsand1/china2018/texts/Anderson-Krathwohl%20-%20A%20taxonomy%20for%20learning%20teaching%20and%20assessing.pdf – accessed 11.12.21.

15 In the revised hierarchy, 'Creating' has been re-ordered as Level VI and 'Evaluating' as Level V.

16 https://www.downs-syndrome.org.uk/about-downs-syndrome/ – accessed 11.12.21.

17 https://www.downs-syndrome.org.uk/about-downs-syndrome/ – accessed 11.12.21.

18 https://www.communicationmatters.org.uk/what-is-aac/types-of-aac/ – accessed 12.12.21.

19 www.widgit.com/symbols/icons_pictures.htm – accessed 09.02.18.

20 www.widgit.com/symbols/symbol_uses.htm – accessed 26.03.18.

UNDERSTANDING AND ADDRESSING DIFFICULTIES IN SOCIAL, EMOTIONAL, AND MENTAL HEALTH

INTRODUCTION

This chapter focuses on aspects of social, emotional, and mental health educational needs experienced by children and young people, and the kinds of behaviour commonly associated with them. Figures from the DfE's *SFR* in January 2021 indicate that, of those young people receiving SEN support in schools in England, 19.5 per cent[1] experienced difficulties in social, emotional, and mental health while 14.9 per cent[2] of those with Statements or EHC Plans were assessed as experiencing problems in that same area.

The Code in England (DfE, 2015) advises:

> Children and young people may experience a wide range of social and emotional difficulties which manifest themselves in many ways. These may include becoming withdrawn or isolated, as well as displaying challenging, disruptive or disturbing behaviour. These behaviours may reflect underlying mental health difficulties such as anxiety or depression, self-harming, substance misuse, eating disorders or physical symptoms that are medically unexplained. Other children and young people may have disorders such as attention deficit disorder, attention deficit hyperactive disorder or attachment disorder.

(§6.32)

Similar kinds of behaviours are outlined in the Code in Wales in the description of young people with difficulties in behaviour, social, and emotional development:

> Some children and young people will demonstrate features of emotional and behavioural difficulties. They may be withdrawn or isolated, disruptive and disturbing, hyperactive or lacking concentration; they may have underdeveloped social skills; or present challenging behaviours.
>
> (NAW, 2021, §2.37)

Interpretations of, and responses to, behaviour perceived as challenging at home and/or in schools often generate a great deal of heated debate. Schools play a critical part in shaping a child's identity as a learner (Bruner, 1996). Student behaviour perceived as a rejection of schooling is nearly always a highly emotional experience (Furlong, 1985) for the young person concerned but often, also, for teachers. Teachers are expected to maintain high standards of behaviour management, as reflected in Teachers' Standard 7 in the set of competences assessed for Newly Qualified Status (NQT) in England (DfE, 2021d). At the same time they are required to take account of students' special educational, or additional learning or support needs, including those associated with aspects of social, emotional, and mental health, which means understanding them as individuals.

In this chapter special attention will be paid to young people's behaviour experienced by teachers and others as extremely challenging, including that associated with emotional deprivation and trauma, for example, bereavement, attention deficit/hyperactivity disorder (AD/HD) and physical violence. The aim will be to illustrate.

- what research tells us about these needs: causal factors and common indicators;
- the relationship between the experience of social and emotional difficulties and learning; and
- ways that the barriers to learning experienced by young people with these difficulties can be addressed in school and elsewhere.

FRAMES OF REFERENCE RELATED TO SOCIAL, EMOTIONAL, AND MENTAL HEALTH

The frame of reference relating to the terms 'emotional and behavioural difficulties', first formally used by Warnock (DES, 1978), or 'social, emotional and behavioural difficulties' or, as now in England, 'social, emotional and mental health' difficulties is ill-defined. Use of these terms to explain why some students behave badly or inappropriately is not always helpful to parents and/or teachers. Poulou and Norwich (2002, p. 112), for example, found from a review of international studies that it can influence teachers' confidence in their abilities to respond to students' needs in classrooms and 'can generate feelings of helplessness and incompetence' (Lennox, 1991; Bennett, 1992; Leadbetter & Leadbetter, 1993; Chazan et al., 1994; Gray et al., 1996). The more teachers thought student behaviour stemmed from problems within the students themselves, such as the 'child wants to attract attention' or the 'child's innate personality', 'the more they experienced feelings of "stress", "offence" and even "helplessness", especially for conduct and mixed behaviour difficulties' (Poulou & Norwich, 2002, p. 125).

Schooling is an integral part of society, not simply a way of preparing for entry to that society (Bruner, 1996). This chapter takes the view that:

- belonging is a fundamental human need, as Maslow's hierarchy (1943), for example, clearly indicates;
- teachers and families can put themselves into a much stronger position to deal with problematic behaviour by recognising that the way students behave may be explained by factors within classrooms and within schools as well as factors associated with those students (Wearmouth et al., 2005); and
- student behaviour occurs in interaction between the learning environment and the individual.

The frames of reference for understanding problematic behaviour really matter. In schools this can have a strong effect on the way teachers deal with students and their parents or carers. We might take the example of 'Maladjusted Jack' and consider how different

interpretations of his behaviour might lead to different kinds of intervention.

The example of 'Maladjusted Jack'

'Maladjusted Jack' was a participant in a series of interviews with adult male inmates in a HM prison (Wearmouth, 1999). He gives an account of how he was born into an unsettled family and was taken into care at an early age as a result of his parents' divorce and his sister's inability to provide for him adequately:

> My parents split up when I was three and I went to live with my sister. She already had two children of her own, and she couldn't cope with me as well. She put me into care.

Social Services were involved in his life from an early stage. When he started infant school he was deemed to be out of control because he used to run around, disrupt classrooms, upset the dustbins in the school yard, and climb on to the roof. He was quickly referred to an educational psychologist for an assessment of his behaviour and deemed as 'maladjusted', as discussed in Chapter 2.

Below we discuss frames of reference as they relate to attachment theory, approaches based in behaviourist psychology, responses to medical, biological, and 'within-child' understandings of behaviour, and whole-school and classroom programmes designed to address mental health and emotional needs.

IMPLICATIONS OF ATTACHMENT THEORY

One psychological theory of human development that has had considerable influence over educational provision for young children such as Jack whose behaviour is of concern in settings and schools in the way in which it makes links between the emotions and behaviour

is that of attachment theory (Bowlby, 1952). As Holmes (1993, p. 39) notes, implicit in this theory is the view that:

> children deprived of maternal care … may be seriously affected in their physical, intellectual, emotional and social development … prolonged separation of a child from his mother (or mother substitute) during the first five years of life stands foremost among the causes of delinquent character development.
>
> (Bowlby, 1944, 1952)

Babies quickly attach themselves emotionally to their adult carers and progress through well-recognised stages of development towards maturity. Successful development depends on needs being adequately met at an earlier stage. Where this is not the case, children will persist in inappropriate attachment behaviour, being over-anxious, avoidant or aggressive, or becoming incapable of warm attachment and positive human relationships (Harris-Hendriks & Figueroa, 1995; Bennathan, 2000).

Nurture groups

Where experiences have been consistently impoverished and children have developed insecure attachments with their main carers or have been neglected or abused emotionally, physically, sexually or socially (and in some cases all of these), some educators have taken the view that it is important to work on establishing secure attachments later with the care and attention of loving adults, for example, in 'nurture groups' (Bennathan & Boxall, 2012).

'Nurture groups' were originally developed in some infant schools, in the Inner London Education Authority in 1970 to 1971 by Marjorie Boxall, an educational psychologist, and re-established more recently by some local authorities. The Boxall Profile is an observational tool that was developed as a way of assessing the level of skills children possessed to access learning and of identifying their developmental needs to support the work being done in nurture groups. It was originally standardised for children aged three to eight years but has recently been developed for use in secondary schools. Boxall (2002) argues that learning, personality, and behaviour difficulties, which are more likely in the young children of families

experiencing disadvantage and deprivation, can be the result of inad–
equate early care and support from parents who struggle with pov-
erty, damaged relationships, and harsh and stressful living conditions.
The underlying assumption of the nurture group is that children
such as Jack who have fared badly though the learning processes
of early childhood need extra support and appropriate experiences.
This means recreating in school the total experience of a normally
developing child from babyhood onwards and planning the routine
of the nurture group day to provide a predictable, reliable structure
in which children can go on to interact and learn in regular settings
(Bennathan, 2000).

Features of nurture groups

The nurture group attempts to create the features of ade-
quate parenting within school with opportunities to develop
trust, security, positive mood and identity through attach-
ment to a reliable, attentive and caring adult, as well as
autonomy through the provision of controlled and gradu-
ated experiences in familiar surroundings. Some features of
such groups include: easy physical contact between adult
and child; warmth, intimacy and a family atmosphere;
good-humoured acceptance of children and their behaviour;
familiar regular routines; a focus on tidying up and putting
away; the provision of food in structured contexts; opportu-
nities to play and the appropriate participation of the adults;
adults talking about, and encouraging reflection by children
on trouble-provoking situations and their own feelings;
opportunities for children to develop increasing autonomy.
These opportunities incorporate visits outside the nurture
group, participation in games, visits to regular classrooms
and children's eventual full-time inclusion in a mainstream
class (Wearmouth, 2009, p. 167).

Nurture groups have been in existence for over fifty years
now. Details of the charity Nurture UK that offers up-to-date
information about recent projects are available at https://
www.nurtureuk.org/ (accessed 15.12.21).

Bennathan (2000) comments that nurture groups accept and work with children with serious social behaviour developmental difficulties who present major challenges to regular class teachers and other students so that they can be included in mainstream schooling. If Jack had been included in a nurture group, the critical challenge would have been to ensure that the group role remained a short-term developmental one and that Jack would be included in regular classrooms after a relatively short time.

Nurture groups had only been established in Inner London when Jack was young, however, not in his home area. The psychologist to whom he was referred assessed him as 'maladjusted' and Social Services and the local education authority decided to send him away to a boarding school for 'maladjusted' pupils at the age of six. Thus began his career in special schools, first through his primary years and then through secondary.

These days Jack would not be identified as maladjusted because the term no longer exists as a formal descriptor of student behaviour in schools. 'Maladjusted' has been replaced by descriptors such as 'emotional and behavioural difficulties' (EBD) or 'social, emotional and behavioural difficulties' (SEBD), both of which still enable removal of students from mainstream on occasions.

Links between emotional growth and learning

Attachment theory offers a clear way for us to think about whether, and how, a child's emotional state links with learning in schools and elsewhere. In Chapter x4we described how Bowlby (1988) conceptualized three kinds of attachment that develop between young children and their carer(s): 'secure', 'anxious resistant', and 'anxious avoidant'. Greenhalgh (1994), for example, links children's emotional growth with their capacity to learn which he feels is dependent on the development of

- emotional safety and trust in others (Winnicott, 1984; Hirschorn, 1998). We can see from this the clear implication of the importance of positive teacher–learner relationships;
- internal confidence in seeing oneself as a separate person (Winnicott, 1984; Hirschorn, 1998) in order to move from dependence to independence; in other words autonomy (self-directed learning); and

- a feeling of inner security enabling some individual exploration of the world (Bowlby, 1988).

If this is the case, then Bombèr's (2007) reminder that many learners' behaviour in settings/school/colleges is a way to communicate distress and that child welfare should be prominent on the agenda of educational institutions is really important. Responses should therefore begin from this understanding. One way to assist a learner such as Jack to contain and regulate emotional states might be, as Bombèr (2007, p. 52) comments, to allocate an identified key adult to the child to provide consistency of support, 'spend time getting to know him [*sic*], finding his strengths and interests and building on these' and scaffold the learning of more appropriate social behaviour. Given that young people who experience emotional distress as a result of loss or trauma may well 'project' their feelings on to the key adult, it is vital that s/he has a support network in the place of work, and a safe environment to discuss concerns. As Bombèr (2007, p. 228) also comments, children 'who have experienced trauma and loss' may have experienced such extreme situations that they have 'needed to stay in control and be hyper-vigilant' in order to survive. Control battles with children with these experiences should be treated differently from other children with less challenging backgrounds. 'A key adult can gently challenge a child to do things differently' but only 'when these children experience mutual respect and trust'. This means that key adults will need to invest 'care and energy into their relationship with the child'. For a child, 'learning to trust is going to be a tough journey' and 'it will be extremely hard for him or her to give up suspicion' (p. 229).

Addressing a situation involving serious conflict

Bombèr (2007, p. 243–4) offers some useful advice for dealing with serious conflict involving a child which is related to concerns about attachment. For example, she advises that only one adult, preferably the key worker, should take action, use firm, controlled low tones to say, for example, 'No', or 'Stop', offer a distractor by changing the activity, stay calm,

> give the child space, and ignore the behaviour, not the child. After a while the adult should talk through what happened, be clear that the behaviour was not acceptable, and reparation for it would be necessary, but that the relationship between child and adult is still strong. The reparation activity, such as tidying up damage that occurred, might be used as closure on the child's anger. '[...] we can't leave them in a state of rage, as this can be overwhelming'.

Supporting bereaved children

One of the events in childhood that is likely to affect children's behaviour very profoundly and, indeed, may have resonances later on in life, is that of the death of the primary caregiver, most often the mother, or of close family members.

> About 5 per cent of children will have experienced the death of a parent by the time they are 16, while 92 per cent will lose someone important to them. At any one time, around 70 per cent of schools have a bereaved pupil in their care.
>
> (Drabble, 2013)[3]

Children need a secure, affectionate, and continuous experience of care from a small number of caregivers in order to grow into emotionally secure and sociable adults. Jack's mother had not died, but he was permanently separated from her at the age of three. The deep distress that results from a child's bereavement or permanent separation from a parent may create a special educational need of a short- or long-term nature.

When children are born there follows a period of developing mutual attachment between child and caregiver. Even babies feel loss, even though they cannot yet process the implications of it. The pattern of attachment that is established between the child and primary caregiver is a source of security that remains important throughout life. Black (1998, p. 931) notes that: 'Infant attachment is at its height at about 3 years of age and then becomes increasingly diffused by the development of other relationships, but it remains

important throughout life, with later relationships qualitatively ech-
oing the other ones'.

Infants' and toddlers' reactions to long-term or permanent sepa-
ration from an attachment figure generally follow a predictable pat-
tern. Crying, searching restlessly, and high anxiety are followed by a
period of despair and eventually 'pathological states of detachment
and indifference may ensue' (Black, 1998, p. 931). Children who
have lost one caregiver often become very anxious about the safety
of others. They may also have feeding, sleeping, and other kinds of
difficulties.

Personal reflections on separation from a parent

My mother was taken into hospital for a long period of
about three months when I was four years old. I couldn't
eat or sleep and became very thin. I was sent to stay with an
aunt, and I can remember being distraught when she went
out anywhere without me. I didn't realise why, at the time.
I had never been particularly close to her.

Five years later my mother died and I developed a stutter.
I just couldn't get the words out. It wasn't a coincidence.

(Wearmouth, unpublished)

Some people may assume that a young person who loses a parent,
caregiver, sibling, or grandparent will not be affected too deeply as
s/he is too young. However, emotional disturbances that are not
immediately obvious may become apparent later and last for sev-
eral years (Rutter, 1966). Weller et al. (1991), for example, found
that over one-third of their sample of bereaved children had serious
depressive reactions a year after bereavement. Cruse Bereavement
Care (2018) comments that it is common for grief to be delayed for
months or sometimes years. Subsequently, other life-changing inci-
dents, for example, moving house or experiencing further bereave-
ment can act to release a bereaved young person's unresolved grief.
There seems to be no way, then, to divert grief. However long grief
has been delayed or denied, it seems that the young person will have
to go through the grieving process eventually.

Children need to grieve too

Children need to be allowed to attend the funeral as part of the grieving process, but should be protected from the raw grief that may be expressed (Black, 1998).

> I was nine when my mother died. My dad didn't let my sister and I go to the funeral. I guess it was because he couldn't cope himself. I was 32 before I found out where my mum's grave was. When I first saw it, it was like she had died just yesterday. The grief was overwhelming.
>
> (Wearmouth, unpublished)

Commonly, children and adolescents long to be reunited with the dead parent and may experience suicidal thoughts. When the death is of the mother, the quality of the care given to the child may also be reduced (Black, 1998). Where the death in the family is of a sibling, the child may feel guilty at having survived when the brother or sister has died. The child may also believe that s/he is to blame in some way for the death. This may lead to profound changes in the child's behaviour (Black, 1998).

SUPPORT FOR BEREAVED CHILDREN

Cruse Bereavement Care (2018)[4] suggests that bereaved children, just like any other, need to know who will be caring for them so that they feel safe. Regular routines should be maintained as far as possible. A familiar adult should let them know what has happened, using words that they can understand, a little at a time. Young children may repeat the same questions over and over, and they will need time to do this. They may react to their grief with very powerful feelings that may frighten them and they will need to know that this is normal and that they are not responsible for the death. It is important to help young children to understand the situation, for example, by looking at pictures of the person who has died, talking about him/her and involving them in rituals, for example, the funeral, associated with the death.[5,6]

Support for bereaved young people

The *Guardian Teacher Network* has made some very useful resources available for teachers and others to think about and use when working with bereaved young people. These are available at www.theguardian.com/education/teacher-blog/2013/jul/01/children-bereavement-help-at-school (accessed 16.12.21).

The BBC has also produced resources on children's bereavement that are available at https://www.bbc.co.uk/programmes/articles/4MmhHDSbdDmTpVJhBs2v4Py/information-and-support-bereavement (accessed 07.01.22).

Studies of grief among bereaved adults indicate that the process and period of mourning is assisted if children are told in advance that the parent is likely to die (Parkes, 1986). It appears that children who know beforehand experience lower levels of anxiety than those who do not (Rosenheim & Reicher, 1985).

Support through family therapy

Long-term support for practical aspects of child care are clearly very important for the welfare of the bereaved child. Family therapy that focuses on sharing the experience of loss and grief in the family and supports talking about the dead parent or caregiver can help the grieving process (Black & Urbanowicz, 1987; Weller et al., 1991). During family therapy sessions, a therapist works with families and those closely related who experience problems to explore what they have to say in order to understand the problems they are having. The aim is to enable family members to communicate better with each other in order to change, develop, and resolve difficult situations. Further details of family therapy are available at https://tavistockandportman.nhs.uk/care-and-treatment/treatments/family-therapy/ (accessed 16.12.21).

As Cruse Bereavement Care notes,

> If the bereaved child or young person wants to ask questions about death and what dying means, answer them truthfully and if you do not know the answer to a specific question don't be tempted to make the answer up.[7]

Above all, young people need to be given the opportunity to grieve. Ignoring or averting the child's grief is not supportive, but can prove extremely damaging as the child becomes an adult. Young people need to be allowed to talk about their feelings. Everyone has their own way of grieving. Not all young people will experience the same emotions, behave the same way, or respond similarly to other people who have lost close friends or relations.

Whole-school/college responses based on attachment theory

In some areas whole-school/college responses to social and emotional concerns have been based on attachment theory. The Gatehouse Project (Patton et al., 2000, p. 586) is an example of a whole-school 'systematic and sustainable approach to mental health promotion in secondary schools' based largely on attachment theory. The aim of this approach was to achieve a sense of trust, security, and effective communication across the school and positive self-regard through participation in varied aspects of school and community life by promoting healthy attachments with learners' peers and their teachers. It began by eliciting the views of the learners to evaluate school ethos by means of a questionnaire. Based on the outcomes, an external support team then sets priorities for the school to promote a more positive environment in the classrooms or the school, suggests materials relevant to teenagers, and agrees on 'normal developmental experiences' to be integrated into the curriculum and links with the local community.

APPROACHES ROOTED IN BEHAVIOURIST PSYCHOLOGY

As already discussed in Chapter 4, most commonly, understandings and strategies in classroom management are based on principles from

a behaviourist psychology frame of reference (Skinner, 1938; Baer et al., 1968). Behavioural methodologies hold that all (mis)behaviour is learned and, therefore, that learning and (mis)behaviour can be modified through intervention in a systematic, consistent, predictable way in the environment. Classroom and school rules are examples of antecedent conditions (or setting events) that are intended to signify behaviour that is acceptable or appropriate. Such rules can also provide punishing consequences for behaviour that is unacceptable.

Young people's behaviour does not occur in a vacuum (Watkins & Wagner, 2000). Teachers see themselves as able to deal with a student's problematic behaviour if they consider that students' problems generally are caused by 'factors originating from teachers themselves, like their personality, manners towards the child with EBD, or teaching style' (ibid.). In other words, if they think they can control the cause of a difficulty they believe 'that they can also sufficiently treat it. In addition, they perceived themselves in such cases as even more responsible for finding an effective solution for the child's problem' (Poulou & Norwich, 2002, p. 112).

Ten principles for controlling and modifying behaviour

Ten principles for controlling and modifying students' behaviour in schools are summarised below from Berryman and Glynn (2001). The first four aim to manage behaviour through attending to the antecedent conditions, that is, aspects of the context which precede or accompany it. The other six principles aim to modify unwanted behaviours by changing the contingencies of reinforcement, that is, the rewards or punishment that follow it.

Changing behaviour by altering the antecedents

1. Careful planning ahead to foresee possible behaviour difficulties that are likely to arise, and preparing strategies and responses ahead of time, can help to avoid challenging or undesirable behaviours.
2. Altering aspects of the context in which undesirable behaviour occurs can influence that behaviour. For example,

ensuring that classroom equipment is properly organised and available and rearranging desks and chairs can make a difference.

3. Give clear instructions that are polite, clear, and concise as an antecedent condition for compliant behaviour. Before an instruction is given, gain the child or student's full attention to avoid unnecessary repeating of instructions which can undermine their effectiveness.

4. Model the behaviour that is wanted, that is, specific ways of behaving in particular situations. Pupils then may imitate that behaviour in similar situations. Students may imitate negative as well as positive behaviour however, for example, abusive or sarcastic language. Modelling may have even stronger effects if the observer sees the modeller being rewarded (Bandura, 1969).

Changing behaviours by altering the contingencies of reinforcement

1. Provide positive predictable consequences. Behaviour learnt most readily is that which consistently has positive consequences. This can include social attention, praise, recognition, access to favourite activities, and so on.

2. Intervene at an early stage. The earlier the intervention to check undesirable behaviour, the easier it is to prevent behaviour from escalating into a major problem.

3. Accept gradual improvement. It is important to provide positive consequences for quite small changes in behaviour at the start.

4. Reinforce preferred behaviour little and often. The frequency of opportunities students have to experience the consequences of their behaviour is important.

5. Define and select another behaviour the student can perform that is incompatible with the undesirable or unacceptable behaviour, and reinforce this with positive consequences.

> 6. Clearly define sanctions, explain them to children, and very carefully implement them for a specified length of time. Implementing these sanctions should not either model or provoke further physical or verbal abuse and should never be accompanied by emotional or angry 'put downs' and abusive comments. Sanctions should be removed when specific behaviour change criteria have been met.

The boarding primary school that Maladjusted Jack was sent to appears from his description to have been run along strict behaviourist lines. He appears to have thrived in a context where he could see purpose in what he was expected to do and where discipline was strict but very fair. He recalled with respect a particular teacher who:

> wasn't too bad a bloke really. He was very fair – very strict, though. He played a game called Leggo because if you misbehaved you got a slap across the legs with this metre ruler and you went: 'Oh, that hurt!' That's why we called it Leggo.

He remembered with affection a woman teacher who used social reinforcers of praise and extra attention to reinforce behaviour that she saw as acceptable and desirable:

> Mrs F. She was probably my best teacher ever. She really did try and help me a lot. She took me under her wing. She saw the potential in me, and tried to bring out the best in me. She was very motherly to me – she stuck up for me when no one else would.

Lack of structure and disorganisation – the polar opposite of what he was used to – in the secondary special school for maladjusted students to which he was transferred, however, led very predictably to frustration, rage, and very uncontrolled behaviour:

> The school was total crap. It was rubbish. It was totally unorganised. There was no foresight in the school at all. There was no purpose. I

> wasn't studying towards exams, I was going over the same things again. The things they tried to teach me, I'd already done it. ... I was laughing in their face because I knew how far they could push, how far they can go. I've been in children's homes and in boarding schools, so I know exactly how far they can go with you. When they overstepped the mark I was the first one to step in there and say: 'You can't do that!'

Finally, he was sent to a secure psychiatric unit:

> I was in there for seven months. 'Beyond control', they actually said. I was locked up, wasn't I? It was just another institution where you had to learn to run the rules and bend them to your best advantage ... I was totally out of it. I thought: 'You've ruined my education, now you watch me, putting you through it, putting you through the grinding mill' ... I was out to beat them any way I could do.

(Wearmouth, 1997, p. 32)

THERAPEUTIC APPROACHES TO ADDRESSING ISSUES OF MENTAL HEALTH

Sometimes children and young people experience emotional, behavioural, and psychiatric problems, for example, extreme anxiety, eating problems, depression, obsessive–compulsive disorder, and so on, that are serious enough to warrant consideration of individual or family therapy.

CHILD AND MENTAL HEALTH SERVICE (CAMHS)

Young people may be referred to the local Child and Mental Health Service (CAMHS). In any one team, CAMHS professionals may well include:

- child and adolescent psychiatrists, medically qualified doctors with a specialism in working with young people and their families;
- clinical psychologists qualified to assess and support young people's psychological functioning and emotional well–being;
- child psychotherapists trained in therapies intended to address problems related to emotions and mental health problems;

- family therapists who emphasise family relationships as an important factor in psychological health and who work with young people and their families together to help them manage the difficulties in their family lives by focusing on the 'systems' of interaction between family members;
- social workers trained to help children and families who need extra support through social welfare or need to be kept safe; and
- other professionals, for example, educational psychologists and art therapists.

THERAPIES

A number of therapeutic approaches might be offered from time to time, for example, play, talking, 'solution-focused brief' therapy, and therapies related to altering attributions.

Play therapy

Play therapy is a form of counselling for children that is based on a relationship between therapist and child where the therapist uses a variety of methods from non-directional to cooperative play to join the child in finding meaning and understanding of the child's world (Mountain, 2016). Play therapy has its origins in child psychotherapy. It also has a strong association with both attachment theory and the humanistic tradition. There is an assumption in play therapy that play is a child's natural medium of self-expression and that they use play as a primary medium of communication (Pidgeon et al., 2015). Play, therefore, can be seen as one channel through which children transmit their emotions, thoughts, values, and perceptions.

Play therapy can be directive, where the therapist structures the play activities, or non-directive, with the child playing at will. British play therapy is non-directive, and currently defined as:

> the dynamic process between child and Play Therapist in which the child explores at his or her own pace and with his or her own agenda those issues, past and current, conscious and unconscious, that are affecting the child's life in the present. The child's inner resources are

enabled by the therapeutic alliance to bring about growth and change. Play Therapy is child-centred, in which play is the primary medium and speech is the secondary medium.[8]

A seminal figure in the development of non-directive play therapy is the clinical psychologist and author Virginia Axline who, in 1964, published a book *Dibs in Search of Self* that has become renowned in the world of play therapy. The book describes a series of play therapy sessions over a period of one year with Dibs, seen by his parents and most of his teachers as having an extreme emotional disorder, abnormal social behaviour, and a cognitive difficulty. When Axline first met him he continuously isolated himself, rarely spoke, and physically lashed out at those around him. Axline held regular weekly hour-long sessions of play therapy with him where he was able to do and say whatever he wanted. In this environment, he slowly opened up and began to explore his feelings. Axline showed Dibs that she was listening to him without judging him. At the end of the year's sessions, Dibs had made enormous progress in his ability to express himself, identify and cope with his feelings, and interact socially with his peers and family. When he was tested on the Stanford–Binet Intelligence Test at the end of his therapy, he scored in the extremely gifted range, with an IQ of 168.

As Pidgeon et al. (2015) note, primarily play therapy adopts a non-verbal approach, in which children aged two to 12 can explore their difficulties, hurts, and feelings through play with, for example, toys, sand, puppets, clay, art, dance, and music. A stable, secure, and predictable relationship between child and therapist is crucial, so that the child can feel safe, accepted, and free to explore and grow. Supporters of play therapy claim that it is effective in addressing psychosocial and behavioural difficulties, trauma, abuse, AD/HD, anxiety, stress, depression, grief, and loss.

Talking therapies

One of the criticisms of the practice of counselling is that it tends to be protracted. In recent years, there has been an attempt to address this criticism by offering a brief series of therapy sessions from a solution-focused approach. This approach is designed to focus on the future and also work with the strengths of clients.

One of the so-called 'talking therapies' that might be used by a CAMHS therapist is cognitive behavioural therapy (CBT). Wolpert et al. (2015, pp. 124–25) describe CBT as an intervention that takes:

> [...] a problem, event or stressful situation as the starting point and explores the thoughts that arise from this, and in turn the physical and emotional feelings that arise from these thoughts, as well as the behavioural response. The therapist works with the individual to consider if these thoughts, feelings and behavior are unrealistic or unhelpful; and how they interact with each other. Then the therapist helps the individual work out the best ways for them to change unhelpful thoughts and behaviour.

The function of CBT can be described to young people as:

> CBT helps you understand the link between your thoughts, emotions, and behaviour. This is important because sometimes, when you talk about things that are difficult, you may feel worse to begin with. It teaches you skills:
>
> - to overcome these problematic thoughts, emotions and behaviour
> - to find ways of overcoming negative thinking and challenging unhelpful and inaccurate thoughts or beliefs.
>
> CBT is not about thinking more positively!
> CBT helps the way you feel to improve what you think and what you do.
> By being able to approach situations in a more balanced way, you will hopefully be more effective in solving your problems and feel more in control of your life.
>
> (Royal College of Psychiatrists, 2016, p. 1)

'Solution-focused brief therapy'

'Solution-focused brief therapy' (SFBT) (de Shazer, 1985) that focuses on solutions rather than problems is an example of a cognitive–behavioural approach. The main objective is to help a student imagine how s/he would like things to be different and what it would take for them to be so. The best-known technique is the 'miracle question' (de Shazer, 1988). A paraphrase of this might be,

> If one night a miracle happened while you were asleep and the problem that brought you here was solved, what would be different when you woke up the next day that would tell you that the miracle had taken place?

As de Shazer et al. (2007, p. 40) comments: 'ultimately the miracle question is not so much about figuring out what would be a "dream come true" […] as it is about discovering […] and replicating the effects of it'.

Students are asked a number of 'scaling questions' to help them work out ways of reaching a positive outcome by learning ways of behaving more appropriately in school and/or achieving more highly in academic terms:

- On a scale of one to ten where one is the worst it's ever been and ten is after the miracle has happened, where are you now?
- Where do you need to be?
- What will help you move up one point?
- How can you keep yourself at that point?

Altering attributions of failure

Weiner's (1979) 'attribution theory' of motivation goes some way to explaining how our interpretation of events, for example, success or failure to achieve something, influences both our motivation for learning as well as our future learning behaviour. What we see as causing the outcomes of events are called attributions. As humans who are making active sense of our own worlds, we attribute causes to our own actions as well as the actions of others. In terms of academic achievement, successes and failures are, most often, attributed to four factors: ability, effort, task difficulty, and luck (Schunk & Zimmerman, 2006). Each factor may be either internal or external to the individual, controllable or uncontrollable, and stable or unstable over time. If learners who experience needs in learning and/or behaviour believe, or can be persuaded to believe, that they have some control over the causes of their difficulties, they are much more likely to be motivated to put effort into overcoming these difficulties (Demetriou, 2011).

ADDRESSING MEDICAL AND BIOLOGICAL EXPLANATIONS OF BEHAVIOUR

Medical and biological explanations of behaviour theorise problems as inherent to an individual. From a medical or biological view, behaviour experienced by others as difficult or challenging is the result of an underlying condition, disease, or dysfunction that an individual has and which requires treatment.

ATTENTION DEFICIT/HYPERACTIVITY DISORDER

One of the conditions that is sometimes attributed to a biological cause is AD/HD. This condition is described by Norwich et al. (2002, p. 182) as 'a medical diagnosis of the American Psychiatric Association' that is 'characterised by chronic and pervasive (to home and school) problems of inattention, impulsiveness, and/or excessive motor activity which have seriously debilitating effects on individuals' social, emotional and educational development, and are sometimes disruptive to the home and/or school environment'. According to the British Psychological Society (BPS) (1996), between two and five per cent of British school students are believed to experience this condition. There are interesting differences in the reported incidence of AD/HD internationally that are explained by some researchers as related to prevailing variations in cultural practices. There is a strict requirement for 'pervasiveness and persistence' across a range of contexts. This means that behaviour seen largely in only one context does not constitute grounds for a diagnosis.

Defining AD/HD as a mental disorder is problematic. There is some suggestion, for example, that 'Educational psychologists (EPs) have become increasingly concerned by the number of children being identified as suffering from AD/HD and prescribed medication, often without sufficient consideration of systemic factors or adequate professional liaison.' One of the reasons reported for their concern is that 'Many children living in adversity may demonstrate behaviours that are associated with ADHD, but may be a reaction to stresses in their life rather than as a result of the underlying biology'. Further, 'There is no biological assessment for the condition', For this reason, any diagnosis comes from the use of subjective checklists of different types of behaviour' (Hill, 2017).[9]

As the AD/HD Association of New Zealand suggests, while no one really knows what causes it there is some consensus among the medical and scientific community that AD/HD is biological in nature. Many believe that it results from a chemical imbalance in the brain.

Many researchers have suspected that AD/HD may result from problems related to communication between neurons. In some cases, a medical diagnosis of the cause of challenging or inappropriate behaviour in schools results in a prescription for particular kinds of medication, most notably psychostimulants.

> The medication stimulates areas of the brain regulating arousal and alertness and can result in immediate short-term improvements in concentration and impulse control. The precise mechanism is poorly understood and the specific locus of action within the central nervous system remains speculative.
>
> (BPS, 1996, pp. 50–51)

Neurons in the brain do not actually connect to each other. There is a gap between them. Neurons communicate through neurotransmitters that are passed between them. Some researchers suspect that stimulants work through the release of these neurotransmitters. Of the most commonly used stimulants, methylphenidate (Ritalin) is most widely prescribed. It is usually administered in the form of tablets to be taken regularly.

One major concern about the use of such psycho-stimulants relates to the effects and side effects of these drugs. There is also an ethical issue concerning the lack of adequate monitoring of the day-to-day classroom learning and behavioural outcomes of medication prescribed for many students.

> [E]ducational practitioners are concerned about the so-called 'zombie' effect (Sharron, 1995) which may be the result of inappropriate doses and poor monitoring. There is also evidence of 'behavioural rebound' in the afternoons when the medication wears off. These concerns illustrate the practical issues of managing medication at home and at school [as well as the ethical risks in relying on medication alone, without providing appropriate learning tasks and activities that attract positive reinforcement, to bring about behaviour change at school].
>
> (BPS, 1996, pp. 51–52)

Although the prescription of a chemical psychostimulant is fairly common, as noted by the BPS (1996), apart from all the ethical considerations, prescribing a drug provides an insufficient response. 'Medication must not become the first, and definitely not the only, line of treatment' (BPS, 1996, p. 2). Also needed are appropriate social support mechanisms in school and outside, including ways to address barriers to learning within the classroom or school context. Focusing on the medical and/or biological bases alone to explain behaviour is likely to provide an insufficient remedy because it ignores the holistic nature of well-being and, therefore, all those other elements that contribute to it. Students' core values associated with self-identity, self-esteem, and a sense of purpose as a functioning member of a social and cultural group must also be considered in addressing overall well-being. There is a great deal of room for exploring ways in which more inclusive pedagogies within classrooms and schools might improve the learning and behaviour of students who are diagnosed as having AD/HD.

The National Institute for Health and Care Excellence (NICE) (2019) offers very useful and important advice on diagnosis and management of AD/HD at https://www.nice.org.uk/guidance/NG87 (accessed 17.12.21).

The use of psychostimulants is not the only common response to the issue of behaviour related to AD/HD. In a summary of 150 intervention studies of students with AD/HD (BPS, 1996, pp. 47–48), seven approaches were identified that are based on a cognitive–behavioural viewpoint. These approaches focus on the effects of consequences through positive reinforcement, response cost, and training in the reduction of behaviour which is viewed as problematic. Positive reinforcement or token reinforcement can result in reduced activity, increased 'time on task', and improved academic performance. 'Several studies showed that behaviour management and medication were most effective when combined'. Mildly aversive procedures (reprimands or redirection) can be effective with primary age children, especially when combined with positive reinforcement. A combination of positive and negative reinforcement procedures and 'response cost', that is, mild punishment designed to make the undesirable behaviour more difficult and more of an effort to perform, has also been successful in some studies. Biofeedback

involving providing the child with some form of visual or auditory feedback on levels of physiological states (for example, heart rate) with a view to the child learning to control and monitor those states has also had some measure of success. Recently, Fitch (2021),[10] while commenting on discussion at an online conference related to interventions for young people with AD/HD and autistic needs, noted:

> While there is a large body of evidence of the effectiveness of pharmacological treatment for these disorder(s) [AD/HD and autism], they are often controversial. I always argue that medication should not be the first choice of treatment, so was pleased that the researchers addressed standardised pathways in the form of an eight-week behavioural intervention of measured-based care to alleviate the symptoms and struggles of those with AD/HD and ASD. These include strategies for parents and teachers in providing one-to-one support, 'chunking' teaching, sessions on yoga, mindfulness and self-compassion and adaptations to the environment such as specialist equipment to reduce loud background noises and bright lights and so on.
>
> (see Fitch et al., 2021)

There is also some evidence that a few students experience intolerance to particular foods and there is the suggestion of a link between this and difficult behaviour. 'Common allergens included additives, chocolate, dairy products, wheat, oranges and other fruit. These particular substances are found in many commercially produced foods and medicines' (BPS, 1996, p. 52). The area of the influence of diet over behaviour is largely under-researched and controversial.

The issue of physical restraint

Whatever label might be given to difficult behaviour, dealing with severe behaviour incidents is far more challenging and stressful for a teacher or others than dealing with mildly disruptive incidents. However, an appropriate response is often the same. On occasions, students may be aggressive, out of control, and a danger to themselves and others. It is

very important to minimise the risk of physical confrontation in the first instance, rather than having to take action after the event. It seems sensible for teachers to avoid confrontations with students where these can be avoided. However, many of us have experienced situations when they cannot be avoided, for instance, if asked by a colleague to help in some crisis or where a student's provocative behaviour may have become intolerable. Dunckley (1999) refers to physical restraint as a last resort that should only be used to manage a dangerous situation. It should be employed carefully and in accordance with school policies, which should indicate when restraint can be used. It may be necessary to remove a student from a group of peers. This can be achieved 'by asking the other students to leave. It may be more appropriate, and safer, to bring other staff to the place where the student is, rather than the other way around' (Dunckley, 1999, p. 10). It is important for those associated with schools to check school, local area, and/or national policies on physical restraint of students in schools.

There are a number of important ethical issues surrounding the restraint of students against their will (Bowers, 1996; Cooper, 1999; Cornwall, 2000). There is a difference between physical restraint, to hold a student still until aggression (hitting, kicking, punching others) subsides, and punitive incarcerations such as locking the student away for extended periods of time, as can occur when the principles of 'time out' are misunderstood, or misapplied, often in the heat of the moment (Cornwall, 2004). Dunckley (1999, p. 16) comments that students who are 'in an agitated state' need 'guidance and direction to increase their sense of security ... where possible and appropriate give a choice, time for the student to respond, then, after an appropriate time, follow through with consequences'.

In a non-statutory advisory document on the use of 'reasonable' force in schools in England (DfE, 2013, p. 4), school staff are advised that reasonable in this context means 'using

no more force than is needed' to control or restrain young people.

- 'Control' means either passive physical contact, such as standing between students or blocking a student's path, or active physical contact such as leading a student by the arm out of a classroom.
- 'Restraint' means to hold back physically or to bring a student under control. It is typically used in more extreme circumstances, for example, when two students are fighting and refuse to separate without physical intervention.

School staff are urged always to try not to cause injury, but it is acknowledged that in extreme cases it may not always be possible to avoid injuring the student. All members of a school staff have the power to use such 'reasonable' force, and this includes searching students for 'prohibited items' such as knives or illegal drugs.

TOURETTE SYNDROME

Tourette syndrome (TS) is a neurological disorder characterised by motor and vocal tics: repetitive, stereotyped, involuntary movements, and vocalisations. As NINDS (2005) outlines, motor tics are, commonly, sudden, brief, repetitive movements that may include eye blinking and other vision irregularities, facial grimacing, shoulder shrugging, and head or shoulder jerking or, more dramatically, touching objects, hopping, jumping, bending, twisting, or motor movements that result in self-harm such as punching oneself in the face. Vocalisations often include repetitive throat-clearing, sniffing, or grunting sounds – or, at the extreme, 'coprolalia' (uttering swear words) or 'echolalia' (repeating the words or phrases of others). People with Tourette syndrome often report that tics are preceded by an urge or sensation in the affected muscles, commonly called a 'premonitory urge' that builds up to the point where it is expressed.

Excitement, anxiety, or particular physical experiences can trigger or worsen tics.

Across the world, the prevalence among schoolchildren 'range[s] from 1 to 10 per 1000, with a rate of 6 per 1000 replicated in several countries' (Piacenti et al., 2010, p. 1929). Evidence from twin and family studies suggests that Tourette syndrome may be genetic (NINDS, 2005). Tics tend to start in early childhood, peak before the mid-teen years, and improve subsequently. Approximately ten per cent of young people have symptoms that last into adulthood. Medication can be prescribed for young people whose tics are severe enough to interfere with their functioning. The most effective appear to be antipsychotics. However, as Piacenti et al. (2010, p. 1930) comment, these 'rarely eliminate tics and are often associated with unacceptable sedation, weight gain, cognitive dulling, and motor adverse effects', such as tremors.

In recent years, particular interventions based on a behaviourist approach have been developed that seem, from small, controlled trials, to be effective in reducing tic severity (NINDS, 2005). For example, 'habit reversal training' acknowledges that tics have a neurological basis and also, in its design, takes into account the context in which the individual lives and works as well as the internal experience of premonitory urges. Piacenti et al. (2010, p. 1930) describe the main components of habit reversal as tic-awareness and 'competing-response training'. Awareness training comprises self-monitoring of tics and the early signs that a tic is about to occur. Competing-response training involves deliberately engaging in a behaviour that is not physically compatible with the tic as soon as the premonitory urge is felt. In this way, tics are not suppressed. Instead, the individual is taught to manage the urge and initiate an alternative socially acceptable behaviour that replaces the tic. The competing response can be initiated when the patient notices that a tic is about to occur, during the tic, or after the tic has occurred. For vocal tics, the most commonly competing response that is taught is slow rhythmic breathing from the diaphragm. With practice, patients are able to complete the competing response without disengaging from routine activities.

Young people with Tourette syndrome often cope well in mainstream classrooms. However, frequent tics can interfere with

academic performance or disrupt social relationships with peers. The author's own experience is that, in a well-managed classroom, other young people can be very understanding and supportive. All young people with Tourette syndrome, as with any other kind of special educational, or additional learning, or support need, benefit from a learning environment that is supportive and flexible enough to accommodate their individual learning needs. This may mean making special arrangements if the tics disrupt the student's ability to write, or problem solving with the student on ways to reduce stress in the classroom or during examinations.

The charity Tourettes Action[11] offers further support and advice about Tourette's.

PATHOLOGICAL DEMAND AVOIDANCE

So-called 'pathological demand avoidance' (PDA) is often associated with autism. The young people concerned may experience difficulty in processing language quickly enough to keep up during conversation, or in understanding 'unwritten rules' of social interaction, including body language and tone of voice, or emotions in themselves or others. They may feel overwhelmed by emotions, be unable to tolerate uncertainty (the 'what ifs' of life, or where a situation might lead), or experience heightened sensory perception and sensory overload.

In the same way that autistic people might avoid demands or situations that trigger anxiety or sensory overload, disrupt routines, involve transitioning from one activity to another, and activities/events that they do not see the point of or have any interest in, young people experiencing PDA may refuse, withdraw, 'shutdown' or escape in order to avoid these things. Many everyday demands are avoided. It may be that another's expectation leads to a feeling of lack of control, then anxiety increases and panic begins. Avoidance can be irrational, for example, dramatic reaction to a tiny request, and it may vary, depending on the individual's current level of anxiety, overall well-being, or particular environment. Anxiety and the need to feel in control may underpin behaviour that might be expressed through: avoidance, anger, shouting, crying, restlessness, boredom, fidgeting, rocking, ticks, repetitive actions, obsessing, skin picking,

swearing, hiding, running off, withdrawing, throwing things, and lashing out at others.

In these cases, negotiation and flexibility are likely to be more effective than firm boundaries, rewards, consequences, and praise. Helpful strategies might include controlling the 'input' of demands, build in 'downtime' to give space for anxiety to lessen, agreeing non-negotiable boundaries to take account of health, safety, and the welfare of other children, anticipating potential challenges and allowing flexibility to accommodate fluctuating anxiety levels. Additionally, it might be helpful to address sensory issues (taste, touch, feel, sound, sight, for example, colours and light), help individuals adjust to new situations (for example, by using visuals or social stories), keep to a predictable routine, give plenty of notice about any changes, or acknowledge that avoiding some things is perfectly acceptable.

A 'meltdown', that is an over-anxious, 'out of control' state, is caused by a feeling of being overwhelmed. It may be:

- outwardly explosive including. shouting, crying, throwing or breaking things, attacking others, or causing harm to themselves; or
- implosive, including withdrawing from communication, hiding, self-harming, curling up in a ball, rocking intensely, making sounds to drown out the world.

A meltdown is a panic response, a crisis to manage, not a battle to win. Management of a meltdown makes a difference to outcomes. Usual forms of discipline are ineffective because the child is not in a fit state to learn anything. It is really important in this regard for the adult figure to separate feelings about the child from the behaviours. Prevention is better than cure, so it is essential to be aware of possible triggers, look for signs that anxiety is rising, keep calm at all times, and reduce stimuli that may add to the sense of being overwhelmed. Scissors, knives, or objects that may be used as a weapon should be removed if possible. The child will need emotional and physical space so, for example, the adult might step backwards and, if a child runs away and there are no safety concerns, follow at a distance. Physical intervention should be a last resort. It is usually better to remove others.

WHOLE-SCHOOL AND CLASSROOM APPROACHES TO ADDRESS SOCIAL AND EMOTIONAL NEEDS

From time to time, local authorities and/or central government have promoted particular initiatives to support young people's social and emotional needs in general terms. We look briefly at National Curriculum guidance (DfE, 2021) in England as it relates to personal, social, health, and economic (PSHE) education lessons, before moving on to the classroom as school initiatives designed to reduce stress and promote collaborative working between learners, in particular 'Circle Time', the use of transactional analysis, restorative practices, and issues and responses related to bullying behaviour.

PSHE IN THE CURRICULUM

The relationships and health aspects of PSHE education have been compulsory in schools in England from September 2020. Updated National Curriculum guidance related to PSHE from the Department for Education states:

> PSHE is a non-statutory subject. To allow teachers the flexibility to deliver high-quality PSHE we consider it unnecessary to provide new standardised frameworks or programmes of study. PSHE can encompass many areas of study. Teachers are best placed to understand the needs of their students and do not need additional central prescription.
>
> However, while we believe that it is for schools to tailor their local PSHE programme to reflect the needs of their students, we expect schools to use their PSHE education programme to equip students with a sound understanding of risk and with the knowledge and skills necessary to make safe and informed decisions.
>
> (DFE, 2021a, https://www.gov.uk/government/publications/
> personal-social-health-and-economic-education-pshe/personal-
> social-health-and-economic-pshe-education – accessed 17.12.21)

As a result of this guidance, schools can design and deliver the PSHE curriculum based on the 'needs' of their students.

As the National Curriculum provides little to no content for schools in this area of the curriculum, the PSHE Association was established as the national body for PSHE education in England,

providing advice and support to a network of teachers and other professionals working in schools nationwide. The Association claims that PSHE education can address teenage pregnancy, substance misuse, unhealthy eating, lack of physical activity, emotional health, and other key issues. An effective PSHE programme can also tackle barriers to learning, raise aspirations, and improve the life chances of the most vulnerable and disadvantaged students (PSHE Association, 2019). It is therefore in a school's best interest to ensure that the programme it provides is thorough and effective.

'CIRCLE TIME'

One initiative associated with the resolution of students' disputes at primary school level in schools in the UK that depends on listening to the views of the student community in classrooms is that of 'Circle Time' (Mosley, 1996). As Tew (1998, p. 20) comments, in many traditional communities the circle is a symbol of 'unity, healing and power' and can be found in the traditions of groups as diverse 'as the North American Indians and Anglo Saxon monks'. Wearmouth et al. (2005) note that, in schools, 'Circle Time' is a meeting that follows strict protocols of involving all participants in discussion where both teachers and students are bound by rules that stipulate no one may put anyone down, no one may use any name negatively (creating 'safety' for all individuals including teachers and parents), and when individuals speak, everyone must listen. Everyone has a turn and a chance to speak, all views are taken seriously, members of the class team suggest ways of solving problems, and individuals can accept the help or politely refuse it (Wearmouth et al., 2005, p. 184).

The rules must be followed strictly. If a student breaks a rule a visual warning is given. If this persists, time away from the circle follows.

'CIRCLE OF FRIENDS'

A small-group activity that, as research by Frederickson, Warren and Turner (2005) suggests, has the potential to result in increased social acceptance by their peer group of children experiencing social, emotional, or behavioural needs and increased overall self-esteem of the

focus child is 'Circle of Friends'. The aim of the Circle of Friends approach is 'full inclusion for all; the belief that there is not social justice until each belongs and has an equal place in our schools and communities' (Newton & Wilson, 1996, p. 5). It works by developing a support network of volunteer peers in the school who meet weekly with individual learners, ensuring that relationships are built around him/her. At the initial meeting, without the target individual being present, the rules of the circle are decided. The group problem-solves with the individual to address any social needs that he/she may be experiencing in school. These meetings are managed very carefully to ensure that the outcome is a positive and supportive experience for the individual with needs. Confidentiality is emphasised, as well as maintaining the times that are agreed.

TRANSACTIONAL ANALYSIS

An approach that is designed to address antisocial or dysfunctional behaviour related to stress, conflict, and/or negative interpersonal relationships and that draws on psychodynamic and humanistic theories is transactional analysis (TA). The philosophy of TA is based on three very positive principles: 'the importance of positive unconditional regard, a common capacity to think and make decisions and a commitment to growth as a fundamental feature of human nature' (Barrow, 2015, p. 169). Educational TA has become recognised by some educators as a 'field of application in its own right' (Barrow, 2015, p. 178). It assumes that successful behaviour management in the classroom relies on positive relationships being built between students, and between students and teachers, and that use of the concepts of TA can create 'win-win' situations.

The TA approach was first developed in the 1950s by Eric Berne to make sense of how people develop, view the world, and communicate. It is based on an assumption that we all have three ego states: parent, adult, and child. This assumption is used together with other key concepts and tools, first to analyse how an individual whose behaviour is of concern communicates, and then to identify what kind of interaction is needed for a better outcome.

Each ego-state is seen as reflecting an entire system of thought, feeling, and behaviour and as determining how individuals express

themselves, interact with each other, and form relationships. These are:

- the 'child ego-state', the set of thoughts, feelings, and behaviours learnt from our childhood;
- the 'parent ego-state', the set of thoughts, feelings, and behaviours about how to be a parent that is learnt from parents and significant others and that becomes part of the developing personality. These thoughts, feelings, and behaviours can be supportive or critical;
- the 'adult ego-state', the set of current responses that are not influenced by childhood experiences.

When, as in schools and colleges, young people communicate with each other and with adults, their ego-states interact to create communication exchanges known as 'transactions'. If the ego-states interact in a healthy way, transactions tend to be positive, but sometimes ego-states can create a distorted view of the world that results in conflict. Understanding these transactions and the states to which they refer is key to conflict resolution.

An important aspect of the application of transactional analysis in schools and colleges is understanding how students give and receive positive and negative 'strokes', for example, acceptance and recognition, or the opposite, because it is assumed that such strokes influence how young people behave. Berne (1964) defined particular socially dysfunctional behaviour patterns as 'games' people play. These patterns of communication exchanges are intended to obtain strokes but function to hide the direct expression of thoughts and emotions. Understanding these patterns can enable unhealthy patterns of stroking in classrooms to be changed through 'redecision' based on the assumption that individuals can choose to behave in a different way. Viewing students as capable of redecision is also the basis for mutual 'contracting' for change, child to teacher or vice versa, and child to child.

Reflecting on the principles of TA, a teacher experienced in using it in her own school, commented:

> A child that feels safe to learn and knows it is acceptable to make mistakes will thrive and a passionate teacher who builds positive relationships with

pupils and with the subject can make all the difference to engage a 'distraught or upset' pupil within the lesson. As a teacher your response to pupil behaviour or disengagement makes the difference between motivation and willingness to learn.

(Wearmouth & Cunningham, 2018, p. 198)

RESTORATIVE PRACTICE

In some schools and local areas, particular programmes have been designed to focus on traditional community values in order to harness the necessary resources to address problems that have resulted in, and as a result of, unacceptable, unsociable behaviours such as bullying (Schweigert, 1999). One such initiative is based in general terms on the principles of 'restorative justice'. The prime focus in a restorative justice approach is on 'putting things right' between all those involved or affected by wrongdoing. Restorative justice can employ traditional conflict resolution processes and culturally appropriate mechanisms drawn from the external community to address and resolve tension and make justice visible and more productive in communities inside the school. In New Zealand, for example, where restorative justice practices are influenced by traditional Maori cultural values and preferred ways of responding to wrongdoing, the emphasis is on the restoration of harmony between the individual, the victim, and the collective (tribe or sub-tribe). In order for restoration to take place, all those involved in the offence 'need to be heard in the process of seeking redress' (Restorative Practices Development Team, 2003, p. 11).

An example of a restorative approach

Wearmouth et al. (2007) describe an example of restorative practice where the teachers, mother and wider family members of 15-year-old 'Wiremu' had become increasingly concerned about his negative, challenging behaviour in school and anti-social activities outside. Things came to a head when he took his mother's car out joyriding and crashed into the neighbour's garden, damaging the gnomes given

to the elderly neighbour by his deceased wife. The behaviour support teacher to whom he had been referred organised a meeting at the local rugby club where Wiremu was a keen member, and invited everyone who knew him to attend. When the boy arrived, unaware of the true reason why he was being taken to the club, everyone was given a chance to speak about him, teachers, community elders, friends and relations. Mostly it was in very glowing terms – about his captaincy of a rugby team, his personal qualities, and so on. Then his mother talked about the loss of the car that meant so much to the family, and the neighbour talked about his dead wife and the broken gnomes.

What happened next had surprised everybody. Wiremu stood up to speak. He was crying. He turned to the elderly neighbour whose garden he had wrecked and asked to be forgiven. He offered to help mend the fence, to sort out the plants in the garden and to repair the garden gnomes. The [behaviour support] teacher recalled him saying: 'As a child I remember your wife ... she used to give my sister flowers to take to mum. She was always smiling and she had a nice face.' Wiremu hugged his mother and apologised over and over again.

(Wearmouth et al., 2007, p. 43) Belonging is a fundamental human need. Even the most hardened students will experience intense and often contradictory emotions when they are challenging school. As Furlong (1991, p. 296) comments:

> Feelings of anger, fear, frustration, elation and guilt may all be present. In the classroom the peer group may be shown the more positive side when feelings of bravado and elation may be to the fore, while in the privacy of the head teacher's office the same students may express guilt and remorse at their actions.

'Wiremu' might have been identified as deviant, suffering from AD/HD, or labelled as something else, and charged with illegal driving of a vehicle and criminal damage to property. Instead, he kept his word, repaired the damage he

had caused and, with the support of family and community, harmony was restored. As the behaviour support teacher commented:

> There was not a dry eye in that whare [meeting-room] and I will not forget it in a hurry. The meeting ended with everyone walking away with their mana [personal standing] and wairua [sense of spiritual well-being] strengthened by what they had seen.
>
> (Wearmouth et al., 2007, p. 43)

The main focus in a restorative justice approach is on 'putting things right' between all those involved rather than punishing. The process of restorative justice has been introduced into a number of schools, in New Zealand and the UK for example, where it can be seen as embodying a set of important skills required by mediators and facilitators but underpinned by a third view as an ethos or philosophy:

> that encompasses the values of respect, openness, empowerment, inclusion, tolerance, integrity and congruence ... and a philosophy which gives central importance to building, maintaining and when necessary, repairing relationships and community.
>
> (Hopkins, 2004, p. 20)

Below we outline the way in which restorative practices were implemented by the Scottish Government.

Restorative practices in Scotland

In 2004 The Scottish Executive established a 30-month pilot project in restorative practices in three Local Authorities. An evaluation of the implementation over the first two years indicates that restorative practice' can offer a powerful and effective approach to promoting harmonious relationships in school and to the successful resolution of conflict and harm.

(https://www.webarchive.org.uk/wayback/archive/201502
20031229/http://www.gov.scot/Publications/2007/08/
23161140/2)

The research indicated that the atmosphere in most of the schools became calmer and learners became more positive about their school experience, reporting that staff were fairer and listened to 'both sides of the story'. 'A small number of schools had raised attainment and in several there was a decrease in exclusions, in-school discipline referrals and out of school referrals'. Overall when introduced in schools with at least some receptive staff and when the initiative was supported by enthusiasm, leadership, and staff development, the outcome was a reduction in playground incidents, discipline referrals, exclusion, and use of external behaviour support.

ADDRESSING BULLYING BEHAVIOUR

It is obvious that uncontrolled bullying by others can be a considerable cause of mental distress in educational institutions. Bullying can take many forms, including cyber-bullying. If the bullying is extremely serious and the bully is over the age of ten, the bully could be prosecuted for a criminal offence, for example, assault or harassment. If the bully is under ten, it may be possible to take legal action for negligence against the school and the local authority for failure in their duty of care to the student. Under the Children Act 1989, bullying is a child protection concern when there is 'reasonable cause to suspect that a child is suffering, or is likely to suffer, significant harm'. If so, staff should report concerns to their local authority children's social care. Schools may need to consult a range of external services to support students who are bullied or address underlying issues contributing to children's bullying behaviour (DfE, 2014a). Rigby (2002) concludes that, from his analysis of work on what constitutes bullying behaviour (for example, Randall, 1991; Farrington, 1993; Olweus, 1993, 1999; Smith & Sharp, 1994), bullying is a combination of the wish to hurt somebody together with hurtful action, an imbalance and unjust use of power, enjoyment on the part of the bully, the victim's feeling of oppression, and, often, repetition of the bullying behaviour. Taking a similar view, government guidance in England (DfE, 2014a) advises that bullying means behaviour by

an individual or group, repeated over time, that intentionally hurts another individual or group either physically or emotionally.

Studies of bullying in schools in various countries indicate that the incidence of bullying by peers appears to be more common in some countries than others (Rigby, 2002). Within countries, Rigby (1997) has shown that differences between schools in its incidence can also be considerable.

Bullying is often associated with an imbalance of power between victim and perpetrator. Once the victim begins to react to the bullying by showing signs of stress, the bully or bullies may experience great pleasure and enjoyment from their feelings of power and dominance. The cycle of bullying may continue and/or grow more intense and continue for a long time. Sometimes the victim may fight back (literally), sometimes she or he may find ways to avoid the bullying by hovering around teachers or staying at home. It is noteworthy that, in schools, there is a negative relationship between the presence of teachers at break times and lunchtimes and bullying (Olweus, 1993).

Rigby (2002) warns against any assumption that the descriptors 'bully' and 'victim' should suggest a stable personality trait. Many of those who bully in their younger years do not repeat this behaviour later on. Some of those who bully in one situation would never do so in another.

It is tempting to think of bullies as being socially inadequate (Field, 1999). However, this may be a gross oversimplification. To take advantage of, and manipulate, other less powerful individuals, bullies may need to be very skilful in the social situation (Sutton et al., 1999). On measures of self-esteem school bullies are average (Rigby, 1997). However, bullies tend to be less able to imagine another's point of view (Rigby, 2002) and to experience stronger feelings of depression (Slee, 1995). They also appear to be more positively disposed towards violence (Olweus, 1993).

Despite the risk of supporting the use of stereotypes, there does seem to be some consensus among researchers about the correlates of victimisation. For example, victims of bullying may have low self-worth and self-esteem, be non-assertive and have poor social skills, be introverted, relatively uncooperative, and physically less strong than others. They may also be physically shorter than others, be lonely and isolated and prone to anxiety, depression, and suicide (Rigby, 2002, pp. 139–40).

Responses to bullying behaviour

Responses to bullying behaviour in schools often fall into one of two categories. There are those that assume bullying is an anti-social act that needs to be reduced through the application of responses from a behaviourist approach, such as various types of punishment contingencies. From this view 'we can best proceed by identifying and punishing behaviour we wish to stop' (Rigby, 2002, p. 463). Typically, any violation of rules is treated similarly whether major or minor. Policies may rely completely on 'rules and sanctions and zero tolerance for rule infractions' (Rigby, 2002, p. 238). State schools should have an anti-bullying policy that sets out the way that bullying should be dealt with in the school as, for example, in England (DfE, 2014a). This includes:

- bullying related to race, religion, and culture;
- bullying students with disabilities or special educational needs;
- sexist bullying and harassment;
- bullying students because of their sexuality or perceived sexuality; and
- cyberbullying (the use of mobile phones and the internet to bully students).

Bullies trade in secrecy, not from their peers but from adults. Breaking through this secrecy is crucial in addressing bullying of any kind. There need to be clear, school-wide consequences for bullying, otherwise the bully will continue in the belief that s/he can do so with impunity (Olweus, 1993).

Other responses focus on establishing respectful behaviour between people so as to minimise bullying through the abuse of power in personal relationships (Rigby, 2002). From this view, 'positive improvement in behaviour between people can be brought about through instruction, persuasion and modelling of respectful behaviour' (2002, p. 238).

SUMMARY

As the DfE (2015) notes, young people's social and emotional needs can manifest themselves in many ways: withdrawn or isolated behaviour patterns, or patterns of challenging, disruptive, or disturbing

behaviour. These behaviour patterns may reflect underlying mental health issues, for example, anxiety or depression, self-harming, substance misuse, eating disorders, or medically unexplained physical symptoms. Other young people may have issues related to attention, hyperactivity, or attachment. When so many, nearly 20 per cent of those with SEN support in schools in England, have been identified as experiencing these needs, it behoves us all to take serious account of ways to support them.

Student behaviour in schools and colleges does not occur in a vacuum. All students' behaviours are situated in a social context and result from interactions between people and their environments or social events. Participation in school activities involves the whole person in its combination of doing, talking, feeling, thinking, and belonging. It refers both to taking part in activity and also to the connections with others during this process. Often, individual students are blamed for their own failure and/or disturbing behaviour in schools rather than also looking for explanations at the level of school structure, organisation, curriculum, and classroom management. We have suggested in this chapter that the frame of reference we use to understand and respond to learners' needs really matters. Personal identity in schools is constituted in the way in which learners participate in activities with others and, therefore, by definition, non-participation. A sense of belonging is a fundamental human need. Bombèr's (2007) reminder that many learners' behaviour in settings/school/colleges is a way to communicate distress is a salient one here. Child welfare should be as prominent on the agenda of educational institutions as academic progress. When a child's head is full of 'scribble'[12] – that is, anxiety, stress, and fear – there is little room for learning. Responses should therefore begin from this understanding.

NOTES

1 This is an increase of 2% on 2017 figures.
2 This is a marginal, 0.5%, increase on 2017 figures.
3 www.theguardian.com/education/teacher-blog/2013/jul/01/children-bereavement-help-at-school – accessed 16.12.21.
4 www.cruse.org.uk/?gclid=EAIaIQobChMItLi4xZWK2gIVVz8bCh3 c1A9hEAAYASAAEgI14PD_BwE – accessed 16.12.21.

5 The *Guardian Teacher Network* has made some very useful resources available for teachers and others to think about and use when working with bereaved young people. These are available at www.theguardian.com/education/teacher-blog/2013/jul/01/children-bereavement-help-at-school (accessed 16.12.21).

6 The BBC has also produced resources on children's bereavement that are available at https://www.bbc.co.uk/programmes/articles/4MmhHDSbdDmTpVJhBs2v4Py/information-and-support-bereavement (accessed 24.02.18).

7 https://www.cruse.org.uk/Children/loss-from-childs-perspective – accessed 16.12.21.

8 www.bapt.info/play-therapy/history-play-therapy/ – accessed 17.12.21.

9 https://www.bps.org.uk/news-and-policy/rise-adhd-educational-psychology-perspective – accessed 17.17.21.

10 https://thepsychologist.bps.org.uk/support-autism-and-adhd – accessed 17.12.21.

11 https://www.tourettes-action.org.uk/ – accessed 17.12.21.

12 The current author's way of explaining to children how their anxiety disrupts their learning.

UNDERSTANDING AND ADDRESSING SENSORY AND/OR PHYSICAL NEEDS

INTRODUCTION

In comparison with other areas of need, fewer young people experience sensory and/or physical difficulties. Of those students in schools in England with an EHC Plan in January 2021, $\simeq$2 per cent were identified as having a hearing impairment as their primary area of need, $\simeq$1.2 per cent a visual and a multi-sensory impairment, and $\simeq$4.5 per cent a physical disability (DfE, 2021b). Of those with SEN Support, $\simeq$1.7 per cent experienced a hearing impairment, $\simeq$1 per cent a visual, $\simeq$0.03 per cent a multi-sensory impairment, and $\simeq$2.3 per cent and physical disability. However, as Miller and Ockleford (2005) comment, young people are individuals with different interests, background experiences, and so on. Categorising need tells us only about the category. As in other areas of special educational, additional learning and support needs and disabilities in educational institutions, a whole range of information is needed to ensure that support for an individual is appropriate. This includes the views of the child or young person and the parents/family and medical and school records.

This chapter focuses on ways to understand sensory and physical difficulties and the educational needs that may result. Particular

attention is given to hearing and/or visual impairments and physical and motor difficulties to illustrate:

- what research studies tell us about these needs;
- the relationship between sensory and/or physical difficulties and needs and young people's learning and future life chances; and
- ways that barriers to learning experienced by young people with these needs can be addressed in school and elsewhere.

We begin with a discussion of issues related to hearing impairments and approaches to support the language and communication of hearing impaired young people and move on to the area of visual impairment: what this means for young people and ways to support visually impaired students and those with multi-sensory impairments in educational institutions. The final part of this chapter is concerned with physical difficulties, exemplified in particular by dyspraxia and muscular dystrophy.

HEARING IMPAIRMENTS

There are many reasons why a child is born deaf or become deaf early in life. Around half the deaf children born in the UK every year are deaf for a genetic reason. Deafness can also be caused by complications during pregnancy. Infections, for example, rubella and herpes, can cause a child to be born deaf. Premature babies are often more liable to infections that can cause deafness. Severe jaundice and a lack of oxygen at some point can also cause deafness. Infections such as meningitis, measles, and mumps, a head injury, or exposure to loud noises can damage the hearing system (WHO, 2016).

THE EAR: STRUCTURE AND FUNCTION

The human hearing system consists of three parts, the outer, middle, and inner ear, all of which must work well to enable its two functions: the receipt of sound and conversion into signals that the brain can understand, and balance. Impaired hearing occurs when one or more parts of the system is/are not working effectively.

Hearing process

The outside part of the ear, known as the pinna, catches sound waves and directs them along the ear canal to the eardrum. The soundwaves cause the eardrum to vibrate and the vibrations are passed across the middle ear by three tiny bones, the hammer (*malleus*), anvil (*incus*), and stirrup (*stapes*). These bones increase the strength of the vibrations which then pass into an organ called the cochlea in the inner ear. The cochlea is filled with fluid and contains thousands of tiny hair-like sound-sensitive cells. The vibrations entering the cochlea cause the fluid and sound-sensitive cells to move. As these cells move, they create a small electrical charge (see Figure 8.1 below). From here, the auditory nerve carries these signals to the brain, where they are interpreted as sound.
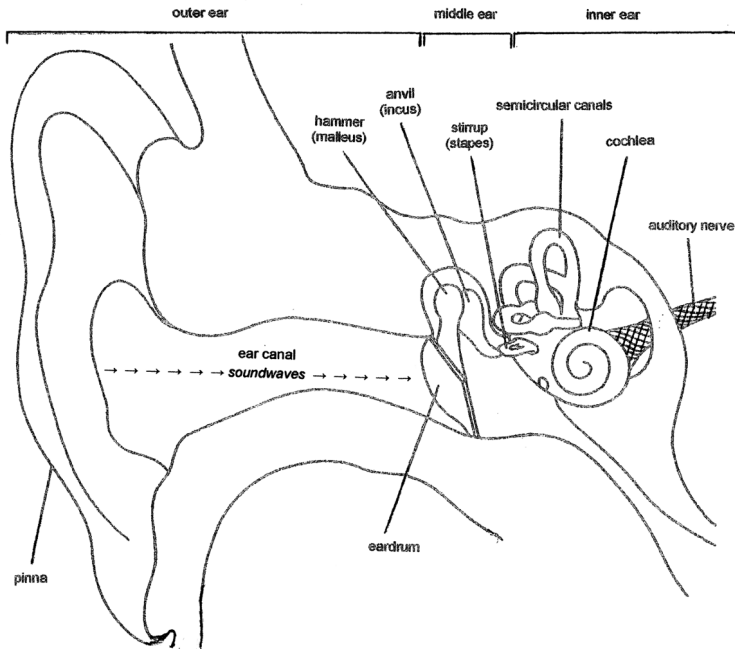
Figure 8.1 Human ear.

Balance

In the inner ear are three tubes, called 'semi–circular canals'. These are filled with liquid and movement-sensitive hair cells. As we move, the fluid moves and creates signals about balance that are sent to the brain.

DEGREES OF DEAFNESS

The severity of a hearing impairment is measured in decibels of hearing loss and is ranked according to the additional intensity above a nominal threshold that a sound must be before being detected by an individual. A decibel (dB) is a measure of sound pressure level. A normal voice measures 60 dB at a distance of one metre, a raised voice 70 dB at one metre, and shouting 80 dB at one metre.

There are different degrees of deafness. Most often these are classified as mild, moderate, severe, or profound (Spencer & Marschak, 2010). Few children are totally deaf. Most deaf children can hear some sounds at certain pitches and volume. The quietest sound that

- those with mild deafness can hear is between 21 and 40 dB. Mild deafness can make listening to whispered conversations a problem, and hearing speech difficult, particularly in noisy situations;
- those with moderate deafness can hear is between 41 and 70 dB. This can include hearing a dog bark but not a baby crying. Young people may have difficulty following speech without using a hearing aid;
- those with severe deafness can hear is between 71 and 90 dB. Those who are severely deaf might hear drums being played, but not a dog barking, and usually need to lip-read or use sign language, even with the use of a hearing aid;
- those who are profoundly deaf can hear is more than 90 dB. A child might hear a large lorry but not the playing of drums. Forms of communication often include lip-reading and sign language.

(Adapted from National Hearing Test, 2017)[1]

TYPES AND CAUSES OF DEAFNESS

Deafness can be of different types: conductive or sensori–neural.

- Conductive hearing loss occurs when sound cannot pass efficiently through the outer and middle ear to the cochlea and auditory

nerve. About 20 per cent of primary children suffer from such loss, reducing to about two per cent by secondary age. The most common type of such deafness in children is caused by 'glue-ear' (NDCS, 2015a), a build-up of fluid in the middle ear that affects about one in five children at any time. For most children, the glue ear clears up by itself. A few need surgery to insert 'grommets' into the eardrums, tiny plastic tubes that allow air to circulate in the middle ear and help to prevent the build-up of fluid;

- 'Sensori-neural' deafness, on the other hand, is permanent and occurs when there is a fault in the inner ear or auditory (hearing) nerve.

Children are not fully able to access a school or college curriculum if they are not proficient in the language that is used. Sound is an important channel of communication between humans from birth as adults comment on, and direct babies' attention to, day-to-day activities. For a hearing child, over time the sounds of the speech around them come to have pattern and meaning which helps them to make sense of their world. 'The exchange of sounds plays a crucial role in infants' cognitive and social development' as Frederickson and Cline (2015, p. 513) comment.

A major problem with late identification of deafness is the effect on language development (Goldberg & Richberg, 2004; Moeller et al., 2007). For a deaf child, early intervention is crucial. As Knoors, de Klerk, and Marschark (2019, p. 592) note:

> Early identification of a hearing loss through universal newborn hearing screening followed by intervention aimed at improving access to language significantly enhances language acquisition in deaf children.
>
> (Yoshinaga-Itano, 2003)

A delay in identification can mean a delay in establishing effective communication with the child. This in turn can have a long-term impact on social and educational development. The consequences on development of undetected hearing impairment may be long-lasting (Yoshinaga-Itano, 2003). Children who do not hear clearly or whose hearing varies may be late to start talking, have difficulties with speech sounds, or fail to develop good listening skills. They may also have poor memory and language-processing skills, poor basic vocabulary as a result, reading and spelling problems, difficulty with sentence

structure and comprehension, and achieve lower attainments in reading and mathematics. Learners with a conductive hearing loss have a higher tendency to behaviour problems, poor motivation and attention, shyness, and withdrawal (Spencer & Marschak, 2010). The most vulnerable are those whose conductive deafness started in early infancy and persisted undiagnosed for long periods.

INCLUDING LEARNERS WITH HEARING IMPAIRMENTS IN MAINSTREAM

In 1908, regulations by the Board of Education in England and Wales laid down that teachers in schools for the blind and deaf must obtain, within two years of their appointment, an approved qualification. The 1908 regulations have broadly continued (DES, 1978; §2.75). These days, many children with sensory impairments are in mainstream schools. It is essential, therefore, that non-specialist as well as specialist teachers understand how to include them most sensitively and effectively.

Key to successful inclusion is the ethos of the school in which the hearing impaired students are placed. Central to this is the person of the teacher.

> The effect of the quality of the teacher, and of teaching, cannot be under-estimated. [...] Teachers indicate that the quality of their teaching is supported by appropriate leadership in schools and by good relations with colleagues.
>
> (Knoors, de Klerk, & Marschark, 2019, p. 600)

The RNID (2004) strongly promotes the message that effective pedagogy for students who experience hearing difficulties is also effective pedagogy for a whole range of other students. They state that 'Reviewing and adapting teaching styles, presentation methods, listening conditions and differentiation of the curriculum to address the needs of deaf learners will also improve the learning conditions for many other pupils in the school' (RNID, 2004, p. 8). However, just because a child with a hearing impairment is educated in a mainstream school does not negate the need for personalised support to meet individual learning needs. Powers (2002), cited in Frederickson and Cline (2015, pp. 528–29) argued that effective inclusion requires a whole-school approach where the school promotes acceptance of

diversity and difference, specifically positive attitudes towards deaf people and a sense of their value, and where teacher and learning support assistants have the required knowledge and skills, as well as attitudes, to teach their deaf students. The curriculum should include opportunities for positive interactions between both hearing and deaf peers, access to deaf culture and adult role models, and a learning environment where communication is effective in relation to learners' needs and where deaf learners have full access to the curriculum. Deaf students and their families should have a crucial role in decision-making, for example, about placement and the curriculum, while members of the deaf community should be involved in policymaking.

Children with a hearing loss that is not addressed may experience increasing outbursts of anger and frustration, embarrassment, and depression as they struggle to hear and understand peers and adults (Blairmires et al., 2016, p. 26). This is even more reason why early detection and intervention, if appropriate, is important as, with suitable individualised support, children with hearing impairments 'can develop speech and language skills at the same rate as their normal hearing peers' (ibid.). A number of researchers have noted the importance of deaf role models for young people's sense of themselves as able to achieve and participate with peers. Blairmires et al. (2016, p. 24) comment, 'Using deaf role models can help deaf pupils to understand any feelings of isolation [and] resolve wellbeing issues'. In terms of the development of interpersonal skills needed in social environments from the earliest years, role models can help children to 'develop strategies for becoming an independent and confident communicator in unfamiliar or difficult situations'. One way of relieving feelings both of isolation and frustration is to enable deaf children to be educated alongside hearing impaired peers. In addition, deaf awareness training for hearing peers is really important and should also be continuing so that, for example, sympathetic others will not mock a deaf child's pronunciation.

APPROACHES TO COMMUNICATION

There are three major 'types' of approaches to communication: auditory-oral (or 'oral/aural'), sign-bilingual, or total communication. Whilst professionals may well be committed to one particular approach 'generally the evidence for any one method working better than another for deaf children as a whole is unclear, and all

the approaches can point to some evidence which shows successful outcomes for children' (NDCS, 2015a, p. 45). As the National Deaf Children's Society goes on to comment,

> The 'best' communication approach for any child and family is the one which works for them, both fitting in with the family's culture and values and most importantly, allowing the child to develop good self-esteem, a positive self-image, successful relationships, and to achieve her potential in all aspects of her life.
>
> (NDCS, 2015a, p. 50)

AUDITORY-ORAL APPROACHES

Auditory–oral approaches are based on the assumption that children who are deaf or hard of hearing can become competent in both receptive and expressive spoken language, and that this language competence is best developed in an environment in which there is exclusive use of spoken, rather than signed, communication. Teaching children to use whatever hearing they have to further the acquisition of spoken language is basic to the approach, so it is obvious that acquiring effective speech and language implies the active engagement of families and carers in their child's education. The auditory–oral approach places a premium on consistent use of appropriate amplification. The use of amplification such as hearing aids, cochlear implants, and radio aids to maximise the use of the child's 'residual' hearing (Spencer & Marschak, 2006) means it is realistic to expect almost every child with hearing loss to hear speech at conversational levels (Stone, 1997). There appears to be some evidence that early use of cochlear implants can be very effective in supporting language acquisition in the early years. 'Hearing aids and cochlear implants should be offered as early as possible so that babies and young children have the opportunity to access sound and develop hearing pathways' (NDCS, 2015b, p. 8). Commenting on a small-scale study, Hayes et al. (2009, p. 134) note the study's findings that:

> children who receive their implants before the age of 2 yr [*sic*], who are of average intelligence, and who are educated in an intensive auditory-oral environment can achieve age-appropriate vocabulary skills after a few years of implant experience.

Acknowledging the limitations of this small-scale study the authors (ibid.) stress the importance of age and the richness of the language environment in contributing to deaf children's language acquisition:

> Future research should continue to explore the effects of age at implant on language development, taking care to address educational environment as a potentially important factor for language success.

The rationale underpinning auditory-oral approaches is that oral language better supports the development of reading and writing, because written language is built on an understanding of the sounds and structure of the spoken language (Beattie, 2006). 'A country's spoken language is a representation of its written language. Speechreading does not give […] full access to a country's spoken language because only some speech sounds can be seen on the lips and teeth.' Many hearing impaired students use their country's signed language. However, this differs from written language in a number of respects. '… one critical difference is that a country's written language is a representation of its spoken language, not its signed language' (Trussell & Rivera, 2019, p. 237). The aim of auditory-oral approaches, therefore, as implied above, is that deaf children should learn to use whatever residual hearing they may have to develop good listening and speaking skills, which will enable them to communicate and mix with hearing people as part of the wider hearing community. The most widely used of these approaches is the Natural Aural Approach promoted by the Deaf Education through the Speaking and Listening (DELTA) organisation. Here, no sign language is used and children are not encouraged to rely on lip-reading (Lewis, 1996).

SIGN BILINGUALISM

Sign languages were not seen as proper languages before the early 1970s, but more as crude mimes or gestures (Gregory, 1996b). As Fry (1964, pp. 183–91) commented, for example:

> The use of conventional signs, as distinct from natural gestures […] is a very primitive form of language and creates a barrier against correct and fluent communication between adults and the profoundly deaf child; it is an easy way out for the adult and expects very little in return from the child.

This attitude may seem rather surprising, given that sign languages had been used for many years by deaf people. Bragg (1997), for example, notes how St Augustine (AD 354–430) implies that signs and gestures by people with hearing impairment were equal to spoken language in terms of reaching the soul. It may also be that the practice of silence among, for example, Benedictine monks in the tenth century 'resulted in the development of the earliest sign language' (Eleweke, 2011, p. 182). The first documentation of sign language in Britain came from a physician John Bulwer who, in 1644, published *Natural languages of the hand* and, in 1648, *Philocophus*, also known as *Deafe and Dumbe Man's Friend*. Formal recognition of sign language in the UK came first through the work of Mary Brennan who, in 1976, coined the term British Sign Language for the sign language used by the deaf community in the UK (Brennan & Colville, 1979).

Gregory (1996b) notes that dissatisfaction with oral approaches was growing around the same time that sign languages were being recognised as 'proper' languages. A seminal study by Conrad (1979) found that deaf students left school with median reading ages of nine, poor speech intelligibility, and lip-reading skills no better than those in the hearing population, despite training in lip-reading. Studies in other countries demonstrated similar poor achievements.

Sign bilingualism uses sign language as the child's first language and the spoken language of the family is learned as a second language (Moores, 2008). In sign bilingualism in the UK, the languages are British Sign Language (BSL) (or Irish Sign Language in Ireland) and whatever is the spoken language of the home. A sign–bilingual approach to developing communication is rooted in the belief that a visual language is essential for deaf children to have full access to language learning, education, information, and the world around them, together with a strong positive deaf identity. Belief in the fundamental importance of this approach to the inclusion of the deaf in society was highlighted at the International Week of the Deaf, 2012, by the World Federation of the Deaf who adopted as its theme 'Sign Bilingualism is a human right!'.[2]

British Sign Language is a complete language in its own right with its own grammar and linguistic rules. There is no written form. Its grammar is very different from English, so it is not used simultaneously with spoken language. It has developed over hundreds of years as a visual language that uses body language, head position,

facial expressions, and gesture as well as the hands. It also uses finger-spelling for some words that have no signs, such as names. BSL is the language of the UK Deaf community and it is estimated that about 70,000 people use it as their first or preferred language. Use of BSL can therefore bring with it a connection with deaf culture and the opportunity and expectation of taking part in the deaf community as well as the hearing world (Burman et al., 2006). Where a child uses BSL it is useful if the rest of the family learn to sign, as well as classmates and teachers in school.

TOTAL COMMUNICATION

Total communication is based on the principle that deaf children can learn to communicate effectively by using any and all means that they can in whatever combination works best: sign, speech and hearing, finger-spelling, gesture, facial expression, lip-reading, and cued speech. Signed/Signs Supported English (SSE) is a sign support system that uses signs taken from BSL together with finger-spelling (Moores, 2001). It is used in the word order of English to supplement what is being spoken. Signed English, similarly, uses signs taken from BSL together with some specially developed 'markers' made with the hands, and finger-spelling, to give an exact representation of the word order and the grammar of English through sign. It is mainly used to support the teaching of reading and writing. In finger-spelling, each letter of the alphabet is indicated by using the fingers and palm of the hand (Padden & Gunsals, 2003). It is used to support sign language to spell names and places and for words that do not have an established BSL sign. Lip-reading is the process of reading words from the lip patterns of the person speaking (Spencer & Marschak, 2010). For a number of reasons, lip-reading is never enough on its own. Many speech sounds are not visible on the lips. Lip patterns also vary from person to person. Further, lack of clarity around the face, for example, poor lighting conditions, beards or moustaches that obscure the mouth, or eating whilst talking can make lip-reading difficult. Lip-reading therefore is used to support other communication approaches. Cued speech is a sound-based system that accompanies natural speech and uses eight hand shapes in four different positions (cues) to represent the sounds of English visually (Hage & Leybaert, 2006). Some spoken sounds cannot be

fully lip-read: 'p', 'm', and 'b' all look similar on the lips; sounds like 'd', 'k', and 'g' cannot be seen on the lips. Hand shapes are 'cued' near to the mouth to make clear the sounds of English that look the same when lip-read. It is intended to make every sound and word clear to deaf children and therefore enable them to have full access to spoken language. The association between the sounds and letters of spoken English is intended to help develop literacy skills as well as spoken language.

Swanwick (2019, p. 90) notes that 'Deaf learners often struggle to develop essential learning skills such as the ability to organize their learning, solve problems, make predictions, see generalizations, and make connections between concepts'. She advocates an integrated approach in drawing on the language repertoire of deaf students that may involve switching between spoken, sign, and written language, finger-spelling, and so on to check comprehension, and introduce new concepts and vocabulary. This is termed 'translanguaging' 'that is, teachers' mindful use of sign, spoken, and written languages that promotes inclusivity and engagement and is supportive of language and curriculum learning' (Swanwick, 2019, p. 94). Translanguaging is likely to enhance learning and language development of hearing impaired learners if:

(a) it is embedded within an inclusive and additive language context
(b) the diverse language repertoires of individuals are recognized and nurtured, and
(c) practitioners have the bilingual skills and agility to lead and respond to translanguaging practices that enhance language development and learning.

(Swanwick, 2019, p. 98)

ASSISTIVE DEVICES

As the NDCS (2008, p. 31) states, deaf children often use assistive listening devices to help them to hear what a speaker is saying, particularly in noisy listening conditions. Personal FM systems (often known as radio aids) are very useful, especially at school, college, or at home. 'They can help reduce effects of background noise in, for example, a school classroom, and help a child to concentrate on one person's voice, often their teacher.' Radio aids have a transmitter with

a microphone and a receiver. The person talking wears the transmitter and the sounds are transmitted by radio waves to the receiver. The deaf child wears the receiver which picks up the signal from the transmitter and converts it back to sound. The child's hearing aids or implants amplify the sound so that the child can hear what is said.

Classroom soundfield systems are designed for similar reasons as radio aids but are not the same. A soundfield system includes a microphone worn by the speaker that is linked to an amplifier by either an FM radio transmitter or an infrared transmitter so that the speaker can walk around a room with no need for wires. Loudspeakers are fitted around the room. The soundfield system amplifies the speaker's voice to produce a clear, consistent level of sound above the background noise (NDCS, 2008). Most children with hearing aids or cochlear implants will still need to use a radio aid in a classroom with a soundfield system.

Sound waves reverberate and increase the amount of background noise in rooms with hard surfaces (Moeller et al., 2007). Soundfield systems and the acoustic treatment of teaching spaces can improve the listening environment for all students. It is important for class teachers to think carefully about the clarity of their spoken language (Wilkins & Ertmer, 2002). Teachers should use natural speech patterns and not exaggerate lip movements or shout, highlight key terms and key concepts, and place themselves in a position appropriate for students to lip-read or benefit from a hearing aid, where the maximum range is often two metres. Deaf students may also need to be encouraged to see the faces of peers who are speaking. To acquire spoken and written English, students may also need the support of visual and written forms of language, as well as lip-reading or multi-sensory clues (Harris & Moreno, 2006). For example, with video materials, deaf students might benefit from advanced access to a summary of the programme and having new vocabulary and concepts explained, as well as subtitles. In addition, auditory-oral approaches require 'consistent, efficient use of individual hearing aids, radio aids and/or cochlear implant devices' (RNID, 2004, p. 15).

IMPROVEMENTS TO ACOUSTIC CONDITIONS IN LEARNING ENVIRONMENTS

There are ways in which acoustic conditions in the learning environment can be improved for learners with hearing impairments.

The listening environment is a crucial consideration (Spencer & Marschak, 2010), as is implied above. Intensity or loudness is measured in decibels (dB). Frequency (pitch) is measured in hertz (Hz). All sounds are made up of different frequencies. Speech comprises vowels and consonants. Vowel sounds are low frequency and consonants are generally higher in frequency. Speech is usually a mix of high and low frequency sounds. The main issue for schools is that everyday building materials absorb the higher frequency sounds more easily than lower frequency sounds. This means that the consonants, which are required for speech clarity, are more likely to be absorbed than the vowels. Therefore, additional special materials may need to be added to a room to absorb more of the lower frequency sounds (Moeller et al., 2007). Noise in classrooms is mostly speech, mainly low frequency. If enough is reflected it masks important high frequency consonants, making it difficult to understand what the teacher is saying. As much low frequency reflection as possible therefore needs to be prevented.

Communicating with deaf children

The National Deaf Children's Society (NDCS) (2015a, pp. 10–12) offers useful advice to teachers and families of children with hearing impairments. For example, it advises avoiding competing noise in the background that makes hearing difficult, bringing everyday sounds to the child's conscious attention and helping the child make the connection between the object and the sound it is making by looking at it. In the home it might be a vacuum cleaner. At school it might be the bell. Carpets, curtains, and soft furnishings that do not reflect sound are more 'acoustically friendly' than wooden or ceramic flooring and blinds. The NDCS also suggests staying within the child's vision as much as possible to enable the child to use visual clues from body language, including facial expressions and lip-reading, and not placing the child facing the window so that s/he is looking into bright light. Wearing plain rather than patterned clothes means that the child can see the signed communication

more easily. Visual supports, such as objects, books, toys, or pictures, can help children to understand unfamiliar concepts. Deaf children's attention should be drawn to the variety of interactions and forms of communication going on around them. If everyone around deaf children uses signing with each other as well as with the children, they can interpret verbal interactions between everyone around them. People speaking to deaf children should face them, repeat and re-phrase if they do not understand. Most importantly, adults and peers should respond to their attempts to communicate and not speak for them.

VISUAL IMPAIRMENT

As discussed in Chapter 10 on assessment, visual impairment (VI) is a general term that indicates a continuum of sight loss (Mason et al., 1997). According to the Royal National Institute for the Blind (2021)[3] VI is estimated to affect over 25,000 children aged 0 to 16 in the UK, and, additionally 15,000 young people aged 17 to 25. Approximately two children in every thousand in the UK has a vision impairment. Those with vision impairment have worse educational outcomes than those with no special education need or disability. The difference in achievement is greatest for those with both a vision impairment and additional needs.

Visual impairment might be the result of a number of factors: genetic or hereditary illness, including congenital optic nerve and retinal disorders, damage to the eye before, during, or sometime after birth, or damage to the visual cortex or to other areas of the brain concerned with information processing. Fifty per cent of blind and partially sighted children also have additional disabilities and this includes 30 per cent with severe or profound multiple learning difficulties.

As a result of their visual difficulties, before going to school, children may well have had less opportunity to explore their environment and learn through observing and copying the actions of others (Douglas & McLinden, 2005). Both academic progress and children's social skills may be influenced by this.

The experience of vision impairment in educational contexts varies in relation to a number of factors. These include for example, the extent to which the buildings are accessible, appropriate transport is available, and assistive products such as glasses or white canes have been provided. It has been estimated that around three per cent of blind and partially sighted learners, aged five to 16, use Braille as their sole or main format for reading and writing (Morris & Smith, 2008).

INCLUDING LEARNERS WITH A VISUAL IMPAIRMENT IN THE CURRICULUM

As Frederickson and Cline (2015, p. 538) note, 'There will be two major objectives in planning the environment when pupils with visual impairment are admitted – safety and access'.

Safety issues

Some areas in buildings will be crowded at times. Using bright contrasting colours may well be helpful for those with visual impairments, as well as marking out important features, for example, light switches with coloured tape or the like. Using carpets as floor coverings rather than shiny materials will reduce glare and will also be helpful in reducing ambient noise levels Textured edges of pathways and careful lighting of staircases may add to young people's safety.

Curriculum access

Children may need specialist teaching of mobility, tactile, and keyboard skills, as well as social and life skills generally. It is important to consider whether and when to withdraw the child from the mainstream classroom for specialist or additional teaching so that the learner does not become socially isolated and the mainstream teacher maintains full responsibility for the learner.

Learners may benefit from teaching of literacy development through specialist codes such as Braille or Moon, designed to be read by fingers rather than eyes through a series of raised dots on a page. As the RNIB (2015) notes, a blind French schoolboy, Louis Braille, devised the code more than 200 years ago. This code is based on

Figure 8.2 Braille alphabet.

six dots arranged in two columns of three. Different types of Braille codes use combinations of these dots, 63 in all, to represent letters of the alphabet, numbers, punctuation marks, and common letter groups (see Figure 8.2).

There are two grades of Braille: uncontracted (previously Grade 1) and contracted (previously Grade 2). Uncontracted includes a letter for letter and number for number translation from print. Contracted has special signs for common words and letter combinations. This usually increases the speed of reading. Particular subject areas, for example, music, mathematics, science, and foreign languages, have their own specialist codes.

The RNIB (2015) gives examples of reading schemes in which books are adapted to enable shared reading between sighted and blind readers. The books include either uncontracted Braille (Grade 1) or contracted Braille (Grade 2). Clear plastic sheets are interleaved to enable the pictures and print story to be seen underneath.

Visually impaired children may become very tired as a result of the amount of concentration required to complete tasks, and/or need more time to complete tasks (Davis, 2003). Special consideration of the learning environment, in particular the classroom, may well be necessary, for example, where to site quiet or loud areas, Braille and/or tactile/large print signs, bulky equipment such

as CCTV, a Brailler, and computers, as well as classroom lighting (Mason, 2001).

There are a number of common misconceptions about visual impairment, for example, as Mason (2001, p. 20) points out, holding a book close will not, as is sometimes thought, harm vision. Dim light will not harm eyes. Some conditions, for example, albinism, mean that a child may require a low level of lighting. Having a VI does not mean that other senses, for example, hearing or touch, are highly developed.

As Mason also comments, in order to plan appropriate support for learners with VI, teachers and support staff need to consider whether the child has a preferred or dominant eye or a defect in field or colour vision. This is important for both seating and using appropriate teaching strategies. There may well be restrictions on physical activities that may constrain the child's participation with peers. Low-vision aids may have been prescribed, so it is important to know when they should be used and whether the child has been trained to use them. Also, a consideration of lighting levels as well as size and contrast of print is important to maximise the child's vision.

MULTI-SENSORY IMPAIRMENT

Multi-sensory impairment means difficulty with both vision and hearing. Children with multi-sensory impairment may be born with it or acquire it later as a result of illness or injury. Very few children are totally blind and deaf. In the past, rubella (German measles) during pregnancy was a main cause of deaf-blindness. However, as a result of vaccination against rubella, usually before girls reach the age of puberty, it is now uncommon. Premature birth and/or severe infections during early childhood may also cause deaf-blindness.

The reduced and possibly distorted visual and auditory information that learners with multi-sensory impairment receive means that they have limited and possibly confused experiences of the world (Aitken, 2000). Some children become skilled at using touch as a means of learning about the world and a means of communicating. Others may become skilled in using the sense of smell. Others may sense movement around them from differences in air pressure. Taylor

(2007, p. 205) notes the difficulties experienced by many of these children in communicating:

> These include: a reduced and confused experience of the world, becoming passive and isolated, and the tendency to be echolalic or repeating the last word said to them, all of which limit their ability to make choices. Aitken and Millar (2002) also highlight the effects of hearing impairment on individuals' communication, including isolation from information and from other people. A physical impairment in association with communication difficulties will also present additional challenges. The child with MSI has all these difficulties compounded.

Bill

Taylor (2007, p. 206) describes a young man, Bill, aged 14, who had quadriplegic cerebral palsy, which caused weakness in all limbs, and epilepsy. His left arm and hand had some useful function for picking up objects, signing, and gesturing. He had bilateral optic atrophy and was registered blind, with some peripheral vision in his left eye. He also had a conductive hearing loss. Other people communicated with him mainly through speech, objects and signing on the body, and expressively through sign, gesture, and vocalisation. He used a voice output communication aid (VOCA) to relay messages from home to school and to make some choices.

For those young people whose visual and vocal ability is severely affected, many assistive devices are available to enable students to communicate: electronic language boards, voice synthesisers, and voice recognition software.

MULTI-SENSORY TEACHING

Multi–sensory teaching is simultaneous use of visual, auditory, and kinaesthetic-tactile senses to enhance memory and learning. Links

are consistently made between the visual (what we see), auditory (what we hear), and kinaesthetic–tactile (what we feel) pathways in learning to read and spell.

The use of such an approach for children whose senses are compromised or greatly reduced could be effective if careful planning takes account of their individual sensory needs. Using a multi-sensory teaching approach means helping a child to learn through more than one of the senses. One possible approach is to involve the use of more of the child's senses, especially the use of touch and movement (kinetic). This will give the child's brain tactile and kinetic memories to hang on to, as well as the visual and auditory ones.

Helen Keller

Helen Keller is, perhaps, the best known deaf-blind child in history. A childhood illness had left her both blind and deaf. During the following few years, Helen became a very difficult child, with her violent outbursts, screaming, and temper tantrums, born of frustration. When she was six, her family found a teacher who herself was partially sighted and had been educated in an institution for visually impaired children. When she arrived, she immediately started teaching Helen to finger spell. At first, Helen could not understand what Anne was trying to communicate to her. The breakthrough came when Anne pumped water over one of Helen's hands and spelled out the word 'water' in the other. Something about this made the connection between the word and its meaning. Helen made rapid progress after that. Anne taught her to read, first with raised letters and later with Braille, and to write with both ordinary and Braille typewriters.

PHYSICAL DISABILITIES AND NEEDS

Motor skills are movements and actions of the muscles. Gross motor skills are required for movement and coordination of the arms, legs, and other large body parts that are used in crawling in the early days,

and later in walking, running, swimming, and so on. Acquisition of gross motor skills is sequential, developing from the head down to the feet, and from the midline of the body to the fingers (Coulter et al., 2015). Children need to control their head, shoulders, and hips to balance while they are standing. This kind of control and balance is, in turn, required for 'bilateral coordination', that is, coordination of both sides of the body simultaneously in order to hop, run, jump, climb, skip, and so on. Crawling is a particularly important skill in the development of gross motor skills. By 20 weeks of age, most babies can roll over from their back to their front, and by 28 weeks, push up on their arms to see the world around them. By 44 weeks, most can move forward on hands and knees, using a cross–lateral pattern. Crawling in this way develops strength in the arms, legs, and neck, encourages a sense of balance, hand–eye and whole–body coordination, and visual acuity with the eyes following one hand, then the other.

Fine motor skills relate to smaller movements in the fingers, hands, toes, and feet, and are needed for using scissors and other tools, writing, picking up objects between the thumb and finger, and so on. These skills typically develop in a reasonably consistent and predictable pattern in the early years of childhood (Exner, 2005). Typically, a two- to three–month–old baby first bats at a toy, then, by six months of age, progresses to grasping, releasing, and transferring objects between their hands (Coulter et al., 2015). S/he then moves on to using fingers to manipulate and explore things, pick up small objects using a pincer grasp, stack blocks, self-feed, and dress. As time goes by, children learn to use tools such as scissors, markers, crayons, pencils, and glue. By five years of age, the majority of children can copy squares, triangles, spontaneously write a few letters, draw a recognisable house and person, and thread a large needle.

The early years of a child's life is usually a time for physical exploration of the world and a time when a great deal of learning takes place as a result. Macintyre (2014) illustrates the critical importance to all aspects of learning of competence in motor skills during this period:

- bodily strength, which develops from head to toe, and from the centre of the body to the outside, is needed so that babies can sit up to see the world around them. They might need support to do so;

- balance is key to every action. Static balance maintains security when the body is still. Dynamic balance is essential for movement;
- coordination enables a child to perform different actions simultaneously. Coordination of eye, hand, and foot is required for activities such as throwing, catching, and kicking balls;
- a sense of speed is needed so that the child does not move too fast and lose control of his/her body; and
- bodily and spatial awareness are required so that the child knows where their bodily parts are in relation to each other and where they function in space.

Generally, they develop naturally and become automatic. However, children who experience delays and difficulty in achieving the basic movement patterns will struggle with the demands that accrue when greater independence is expected unless they have special support.

A physical disability that impairs a young person's mobility, or a medical condition will not necessarily lead to assessment for, and provision of, special or additional support. This will happen only if special or additional support and so on is required to enable the individual to access the school or college curriculum.

Severe motor impairment may be related to a number of conditions, for example, muscular dystrophy and cerebral palsy. In addition, many young people who do not have a medical condition may nevertheless experience a significant difficulty in motor coordination, for example dyspraxia, sometimes termed 'developmental co-ordination disorder' (Frederickson & Cline, 2015).

MUSCULAR DYSTROPHY

An estimated 70,000 people in the UK have a form of muscular dystrophy or a related disability (NHS, 2021).[4] The term is used to refer to a group of genetic muscle diseases associated with progressive weakness and wasting of muscles owing to the degeneration of muscle cells. This can include the heart.

There are over 30 different conditions that can be categorised into seven groups, including Duchenne, Becker, limb girdle, congenital, facioscapulohumeral,[5] oculopharyngeal,[6] and Emery-Dreifuss. The severity of muscular dystrophy is variable. Symptoms can be obvious at birth or shortly thereafter. Sometimes the symptoms are very mild

and only apparent much later, between the ages of 40 and 50. Most of these involve a defect in a protein that plays a vital role in muscle cell function or repair. An overview of these conditions is available on the National Health Service website at https://www.nhs.uk/conditions/muscular-dystrophy/types/ – accessed 18.12.21.

To take one example, Duchenne muscular dystrophy affects only boys, with very rare exceptions. Around one boy in 35,000 is born with this condition – that is, about 100 boys born in the UK each year. In just over 50 per cent of all cases, the mother carries the gene but is herself not usually affected by it. Each son of a carrier has a 50 per cent chance of being affected and each daughter has a 50 per cent chance of being a carrier. A problem in the genes results in a defect in dystrophin, which is an important protein in muscle fibres. Most boys with this condition develop the first signs of difficulty in walking at the age of one to three years and are usually unable to run or jump like their peers. By about eight to 11 years, boys become unable to walk. By their late teens or early 20s, the muscle-wasting is severe enough to shorten life expectancy (Pohlschmidt & Meadowcroft, 2010).

Regular supervision from a clinic is very important to manage the condition as effectively as possible. Many children who experience difficulties in gross motor movement use a wheelchair. Others may be unable to control or vary their posture efficiently.

> These children will need specialised equipment to aid their mobility, to support their posture and to protect and restore their body shape, muscle tone and quality of life. It is vital that children with physical needs have access to appropriate forms of therapy, for example physiotherapy and hydrotherapy, and that their carers receive training to enable them to manage their physical needs confidently on a day-to-day basis.
>
> (Mencap, n/d, p. 5)

CEREBRAL PALSY

Cerebral palsy is one of the most common congenital childhood disorders. (Congenital means that the condition is present at or before birth.) It is usually caused by brain damage that happens before or during a child's birth, or during the early years. Cerebral palsy affects muscle tone, movement, and motor skills. Individual young people

are affected differently, depending on which part of the brain is affected. However, as Rosenbaum et al. (2007) comment, young people with cerebral palsy often experience difficulties in feeling, perception, cognition, communication, epilepsy, and also secondary musculoskeletal problems. It may be necessary for children to visit the doctor in school time or to take medication, so they may well need support to catch up with classroom activities and assignments.

ENABLING PHYSICAL ACCESS AROUND THE SCHOOL

One obvious way in which schools can ensure that the buildings are accessible to those young people who require the use of a wheelchair is to accompany one or more on a tour of the school to take note of areas that create barriers to mobility, and then to remove the barri–ers. Alternatively, Coulter et al. (2015, p. 25) provide a very useful checklist for those considering the degree to which those students using wheelchairs can access school buildings safely:

- Are there any stairs without handrails?
- Is the pupil safe on the stairs or is adult support required to ensure safety?
- Are corridors free of clutter?
- Are there any sunken mat wells that could be a trip hazard?
- Can all pupils open doors independently? Check strength of all auto-matic door closers and have them re-adjusted if there is a problem.
- Do fire doors open easily?
- Is there a clear path around classrooms for pupils to navigate?
- If the pupil has a physical management programme, is there some-where for this to be carried out?
- Can the pupil move from one class to another without getting disorientated?
- Are subject areas clearly marked?

Coulter et al. (2015, p. 26) also offer advice about ensuring that learning activities are accessible in classrooms, for example:

- Sit pupils at the front of the class so they have a good view of the board and can focus attention on the teacher – always facing the board, not at an angle to it, as this distorts visual perception.

- Ensure pupils are in a good sitting position for working – at the right table height, sitting with straight back and feet flat.

ENCOURAGING PHYSICAL ACCESS THROUGH THE USE OF ICT

The potential effectiveness of particular technological devices and programmes in supporting the learning and achievement of many young people who experience difficulties of various kinds, and, in some cases, in enabling greater independence, has been acknowl-edged for some time. Mitchell (2014, p. 192), for example, notes that, over 20 years ago, the US Congress expressed a view that appropriate technology enables individuals to:

- have greater control over their own lives;
- participate in and contribute more fully to activities in their home, school, and work environments, and in their own communities; and
- interact to a greater extent with non-disabled individuals.

Such devices and programmes include the use of what might be termed 'assistive technology': items of equipment or products that are used to increase, maintain, or improve functional capabilities of individuals who have disabilities of any kind. For example, a student who cannot use his/her hands can control the computer by pressing a switch with his/her head.

> A youngster who has problems with fine motor control can use a trackball to move a pointer across the screen. He can select the options in a draw-ing package to draw a series of geometric shapes, with a confidence that the quality of the results will do justice to his intentions.
>
> (NCET, 1995, p. 4)

Mitchell (2014, p. 195) has outlined guidelines that he suggests are important for those choosing technological devices or programmes to be used by young people with a variety of learning or physical needs:

- involve the learner and his or her parents in selecting the device;
- customise it to suit the requirements of the learner and his or her usual environments;

- keep it as simple as possible and as similar as possible to those already in use;
- ensure that it is durable under the anticipated conditions of use;
- ensure that it is aesthetically pleasing, age-appropriate, fashionable, and culturally acceptable; and
- give it an evaluation trial.

Students with physical impairments may have difficulties in motor control and may experience reduced or no movement; imprecise movement, low speed, and muscular strength; and fatigue or difficulties in hand–eye coordination. They may experience other difficulties in addition, for example, cognitive and verbal language difficulties. In a previous chapter, we considered some of the uses of assistive technology to enable a greater degree of access to the curriculum for those students with difficulties in communication. Below we look specifically at some of the applications that support such access for young people with physical difficulties.

The kinds of physical access supported by technology can considerably reduce physical barriers to the learning of students with a greater degree of physical difficulty, using both hardware and software that have been specially designed for the purpose. For example, the standard computer keyboard with the numeric keypad on the right favours right-handed people. It is also sensitive. Strings of letters may appear on the screen if a key is held down too long. Keyboard behaviour can be changed, however, by using some of the features in, for example, Windows.[7]

Sometimes simple technical adaptations can enable the student to participate fully in school or classroom activities. For example, modified grippers attached to the hand and clamped to the pen, enlarged pens that are easier to grasp, and weighted pens that reduce tremor and clips or magnets that stick paper to a desk can be useful in supporting the physical act of writing.

Different sizes and shapes of keyboards can also replace the standard keyboard and the position of the keyboard can be changed to accommodate individual needs. Retractable lap trays bolted under the desk can hold the keyboard to enable a lower typing position if needed. Keyboards can be tilted, and switches and pointers can be fixed in specific positions where they can be handled more easily.

Alternatively, on-screen keyboards enabling letters to be selected by a mouse or trackball can be used to make the selection. Some on-screen keyboards also have a facility for word prediction to make typing quicker.

The way the mouse operates, for example, the speed and the amount of time needed for double clicking, can be adjusted. The buttons can be swapped over for left-handed use. Mice also come in different sizes and shapes; and require varying amounts of pressure on buttons. A trackball is like an upturned mouse but it is a static device with the ball on the top that is moved with fingers, thumbs, and palms. Larger trackballs can be moved with the feet.

With screen-based devices such as touchscreens and a light pen – which is a light-sensitive stylus wired to a video terminal that is used to draw pictures or choose an option from a menu – selections and movements can be made by pointing at the screen surface. However, where a user is physically or cognitively unable to use any keyboard or pointing device, then a starting point can be to use a switch. This is a button that sends a signal to the computer to control the software. Switches can be operated by any controlled movement of the body.

In recent years, some companies specialising in technology in education, in particular in the area of SEND, have produced software for mobile devices that includes switch access. Inclusive technology, for example, refers to its iPad and Android apps as 'carefully designed to meet a range of special educational needs including switch access for those with physical disabilities'.[8] Use of apps on mobile devices has the added advantage, in relation to provision for SEND, that these can be shared with others outside the classroom, most notably parents and families.

Using ICT to support young people with profound disabilities

Lilley (2004, pp. 82–84) offers a number of examples of individual programmes developed to incorporate the use of ICT for students with multiple and profound difficulties in learning and/or disabilities. For example, 13-year-old Samantha

with cerebral palsy and poor fine and gross motor control was provided with 'an ultra-compact keyboard with guard and a gated joystick' that enabled her to move the cursor on the screen. A large 'jelly-bean' switch replaced the left-click function on a normal mouse. A 'Mouser 3' linked the mouse and the computer to allow switches to be used instead of the mouse buttons; 11-year-old Ann was confined to a wheelchair after a road accident when she lost expressive language. A jelly-bean switch was fixed to a specially-adapted tray on her wheelchair, and Ann was encouraged to use a range of software programs designed to help learners understand the principle of cause and effect – a press of the switch causes a reaction on the computer screen. When she had mastered simple switch use, she was encouraged to work on 'simple scanning software (Clicker 4 – a widely used piece of software that allows children to click on pictures and phrases which the computer can speak if desired) that can easily be customized' (Lilley, 2004, p. 84).

RESPONDING TO THE NEEDS OF LEARNERS WITH SEVERE DIFFICULTIES IN MOTOR MOVEMENT

Individual children with severe motor difficulties:

> may have difficulties affecting some or all of their limbs, limited hand function, fine and gross motor difficulties and sometimes difficulties with speech and language. Most, though not all pupils will have a medical diagnosis. A diagnosis may have been given at birth, at about the age of two or a later date, though deteriorating conditions such as muscular dystrophy may not be diagnosed until the child attends school. Some children may have physical difficulties as a result of an accident or illness, which can happen at any age. It must be remembered that, in the same way as other children, they may also have learning difficulties, dyslexia, dyspraxia, asthma, epilepsy, vision and hearing difficulties or hidden handicaps affecting their visual/auditory perception or eye/hand co-ordination etc.

(Pickles, 2001, p. 290)

A long-term plan for these learners would consider

> dignity and emotional needs ... especially in positioning, toileting and transfers ... to enable pupils to be as independent as possible ... recognising that teaching methods may need to vary as needs change is all part of inclusion.
>
> (Pickles, 2001, p. 292)

It would also need to include the views of the individual young person with hopes, expectations, and rights, considerations of physical access to the school environment, ways in which the needs of the family and the individual's place within it can be taken into account by the school, the role of the support assistant(s) and the kind of relationship that might be established with the child and the family and any issues this raises, and the role and function of information and communications technology and of any other appropriate technological aids. How therapy might fit into the child's curriculum might also be very important. Staff in the school, and peers if appropriate, would need to be made aware of the child's strengths and needs.

DYSPRAXIA

According to the charity, the Dyspraxia Foundation, dyspraxia can be defined as 'a common disorder affecting fine and/or gross motor coordination in children and adults'.[9] Young children with dyspraxia experience difficulty in activities requiring balance, coordination, and control: $\delta\upsilon\sigma$ (dys) bad or difficult; $\pi\rho\alpha\xi\acute{\iota}\alpha$ (praxia) action. One of the earliest signs is that a baby is 'floppy' and has poor muscle tone. Often, dyspraxic children miss out the crawling stage and, therefore, all the skills that develop with it. Many of the activities of day-to-day living that require gross and fine motor coordination, for example, using a knife and fork, tying shoelaces, writing neatly, and, sometimes, speaking clearly, are difficult. All young children are different, and families, practitioners, and others in early years settings should carry out careful observation to identify the effects of dyspraxia.

In the early years of education, the experience of motor coordination difficulties may result in problems in both gross and fine motor skills (Macintyre, 2014). Among these are:

- clumsy movements, bumping into objects and easily losing balance;
- difficulty climbing on play equipment, jumping up with two feet, and jumping from too great heights;
- difficulty pedalling tricycles and throwing and catching large balls;
- uncertainty in hand dominance;
- inability to use scissors and grip pencils properly;
- poor sitting position;
- difficulty taking off a coat and undressing generally;
- inability to use toilet facilities without help; and
- difficulty learning sequences.

Clumsiness, poor balance, poor personal organisation, and difficulty in completing tasks requiring fine motor skills may well persist in later years.

The exact causes of dyspraxia are unknown. However,

> it is thought to be caused by a disruption in the way messages from the brain are transmitted to the body. This affects a person's ability to perform movements in a smooth, coordinated way.[10]

Once a child's difficulties have been identified, either at the newborn stage or later on in the early years, there may well be a referral to health professionals, including physiotherapists and occupational therapists, and a plan put into place to address the difficulties. Plans should clearly take account of the outcomes of the assessment of difficulties, specify ways to address these, and include clear targets in which the child and family should be involved. Advice from the health professionals may well be incorporated into the plans.

LIAISING WITH SUPPORT STAFF

In general terms, one of the ways of approaching how to support students who experience visual, auditory, or physical difficulties is to

consider how best to liaise with support staff who may be employed to help address these students' learning needs. The Education (Specified Work) (England) Regulations 2012[11] specify circumstances in which certain types of school staff – such as support staff – may carry out 'specified work' relating to teaching and learning. The role of support staff in the classroom is to help the teacher make sure that each child engages positively in class activities and makes progress. Support staff can help to support the development of differentiated curricular approaches to meet the diversity of students' learning needs.

SUMMARY

The greatest challenge for a child with a sensory impairment is communication (Spencer & Marschak, 2010). A child who can see and hear will reach out and explore its surroundings naturally. A child with a sensory impairment will not necessarily do this and may need encouragement to explore and interact with others. For a deaf child, normal progress in language may be hard. Intensive education and support may be needed throughout the child's life. A unique communication method may be developed for the child with a sensory impairment of need, but whatever the means of communication, it should enable that child to develop cognitive and other skills, whether it is symbols, objects of reference, sign language, Braille, or something else. A child with severe motor impairment from birth is not likely to learn as much as non-disabled peers from physically exploring the world. Early intervention in the child's life is clearly very important to maximise learning opportunities and facilitate the child's inclusion in education later on.

However much is known about a child's sensory or physical difficulties though, as Miller and Ockleford (2005) aptly comment, that child is still an individual with his/her own personal strengths and needs, interests, experiences, background, and so on, that, together with his/her own views, must all be considered when drawing up any intervention plan.

NOTES

1 www.nationalhearingtest.org/wordpress/?p=786 – accessed 17.12.21.
2 https://wfdeaf.org/news/international-week-of-the-deaf-2012/ – accessed 18.12.21.

3 https://www.rnib.org.uk/professionals/knowledge-and-research-hub/research-reports/education-research, accessed 18.12.21.

4 https://www.nhs.uk/conditions/muscular-dystrophy/ – accessed 18.12.21.

5 Facioscapulohumeral MD: literally 'face', 'shoulder', 'arm'. Around 50% of people also develop weakness in the legs. The condition is slow to progress and does not usually affect life expectancy.

6 Oculopharyngeal MD: literally 'eye' and 'throat', hence it affects eye muscles and swallowing. The condition does not usually affect life expectancy.

7 http://windows.microsoft.com/en-nz/windows/make-keyboard-easier-to-use#1TC=windows-7 – accessed 18.12.21.

8 www.inclusive.co.uk/apps/mobile-cell-phone – accessed 18.12.21.

9 https://dyspraxiafoundation.org.uk/about-dyspraxia/ – accessed 18.12.21.

10 https://dyspraxiafoundation.org.uk/about-dyspraxia/ – accessed 18.12.21.

11 www.legislation.gov.uk/uksi/2012/762/made – accessed 18.12.21.

UNDERSTANDING AND ADDRESSING A RANGE OF NEEDS IN LITERACY ACQUISITION

INTRODUCTION

Among educationalists, there is general agreement about the very grave effects that serious difficulties in literacy development can have on children and their families. Literacy is an important part of the cultural toolkit needed by all students if they are to become fully functioning and participating members of their own society in later life (Bruner, 1996). Those who fail to learn to read and write competently at school can, potentially, be disadvantaged throughout their lives.

When we think about the number of children and adults that we have met over the years who have experienced, or continue to experience, barriers to literacy acquisition, it is clear that there is no single cause. If this is the case, then it is also clear that there is no simple recipe for a one-size-fits-all solution to removing these barriers, as has been noted by numbers of researchers over a very long period of time, for example, Bond and Dykstra (1967), Adams (1994), and Glynn et al. (2006). We might reflect on a number of issues in this regard, for example:

- the qualities of the individual teacher who can be highly influential in creating the kind of learning environment that can motivate and support students to continue with their efforts to become

competent literacy learners, even when they experience considerable difficulties. From their research into around 8,000 learners' perceptions of classroom learning in about 15,000 classes, Hobby and Smith (2002) conclude that:

pupils' motivation and desire to learn will significantly affect their academic progress (as well as promoting more rounded, social development). ... The collective perception of pupils of what it feels like, in intellectual, motivational and emotional terms, to be a pupil in any particular teacher's classroom; [is highly significant] where those perceptions influence every pupil's motivation to learn and perform to the best of his or her ability.

(Hobby & Smith, 2002, pp. 8–9)

- the way in which different understandings of what 'literacy' is all about, as well as the process of reading and writing, lead to differing interpretations of the root cause of barriers to literacy acquisition and, therefore, different views about which programmes address these barriers in the most effective way and what constitutes research-based best practice; and
- the implications of differences between learners' prior experiences of literacy learning in, for example, the different literacy practices in learners' families and cultures that need particular consideration.

This chapter therefore reflects on:

- some of the evidence about the characteristics of effective teachers of learners who experience difficulties in literacy acquisition;
- what teachers and others might need to know about:
  - different theories of literacy acquisition, in order to understand and address the barriers experienced by some learners;
  - what strategies that are based on these theories teachers and other adults and peers in classrooms can use to improve learners' literacy levels;
- what kind of family and community support might be appropriate for literacy learning.

ATTRIBUTES OF SUPPORTIVE, RESPONSIVE LITERACY TEACHERS

Our identities as literacy learners – that is, what we think of ourselves as readers and writers, what we think we are good (or, conversely, bad) at, what we think we can (or cannot) do and what we believe others think of our abilities (Sarup, 1996; Tatum, 1997) – make literacy learning both possible and significant for some people and hinder such learning for others. From this view, our identities as readers and writers 'provide the context in which all the learning that might be significant actually becomes significant' (Wearmouth et al., 2009, p. 24).

Settings, schools, and colleges are obviously important contexts for students to develop a sense of self as able to read and write (Glynn et al., 2006). Particularly where the learner has experienced considerable difficulties in literacy development, it is important that support for literacy learning is offered in ways which are responsive and productive in classrooms. As Bruner (1996) notes, one of the prime responsibilities of schools is to support the construction of a learner's sense of self as able to learn and achieve.

A research study (Wearmouth, 2019) carried out in the classroom of a New Zealand primary teacher, formally identified by a national body of teachers as having excellent practice in supporting literacy acquisition, aimed to examine literacy learners' identities within the context of her pedagogy and the learning environment of her classroom. In particular the intention of this study was to compare high and low literacy achievers' identities and identify how they were 'fixed' into their status as high- or low-achieving literacy learners through:

- the teacher's assumptions about the potential attainment of the different learners in the area of literacy, especially writing, and their expressed expectations of success and/or non-achievement;
- models of learning and teaching underpinning literacy pedagogies in the classroom;
- the nature of messages conveyed to students about themselves as writers;

- the kinds of support given to students for active participation in writing activities; and
- students' experiences of who they were as writers.

It was clear from the observations and data collection that everything in the learning environment had been deliberately planned to carry a very strong message of her high expectations of, and support for, her students' literacy learning. She had, for example, created a rich, print-saturated context in which a notice on the ceiling read: 'Shoot for the moon. If you miss you'll land among the stars.' Right from the very beginning of the year she encouraged her students to experience what it feels like to be a writer and communicate what they wanted to say freely, and introduced 50-word stories. She said (p. 97):

> I say just write for me. Just write, I'll learn to decipher, I'll get you to tell me if I don't understand it. Just write. Because I'd rather I had them all writing, rather than worrying about their spelling, and that getting in the way at the beginning.

Lessons on grammar and spelling came later, in a way that related to the students' own work.

Findings from the study reflected Lyle's (2008, p. 230) outline of the essential features of 'dialogic teaching', that it '.. explores learner's thought processes … treats students' contributions', including answers to teachers' questions, as an 'ongoing cognitive quest … [*that*] nurtures student's engagement, confidence … responsibility'. This includes:

- teachers and students addressing learning tasks together, listening to each other and considering alternative viewpoints. In explaining her approach to supporting the development of new writing skills, this teacher (p. 98):

> [...] deliberately encouraged students' active engagement in discussing the structure and content of writing from an understanding of its particular purpose [i.e. its particular genre] and then modelled what had been collectively agreed. [She said]: 'We agree success criteria together. If we're looking at introductions, what is it that makes a good introduction? We decide to find that, we agree that that's what we're looking for today, and then we write it, I'll model it.'

- students articulating ideas without fear of embarrassment about being wrong, and giving each other mutual support. All students had writing 'buddies' with whom to discuss their work and elaborate their ideas and understandings as they went along. Cognizant of the importance of not publicly singling out lower attainers, the teacher had guided all students in the class to behave as writing 'buddies' for their peers (p. 99):

> I'll show them an example, we'll unpack it together and talk about what makes it good, then the students will have a chance to write with a buddy, we'll look at it again and then they'll write individually.

All therefore knew what they were looking for and how to respond constructively and positively (p. 95).

- teachers and students building on their own and others' ideas and linking them into coherent lines of thinking through the sharing of examples of effective writing. The teacher noted (p. 98):

> I try to find either from the writing students have done themselves or from published material, quality examples of that style of writing and I share that with the students, and we unpack what makes it good.

- teaching carefully planned to be constructive, positive, and very supportive of all students' identities as developing writers. She modelled scaffolding through the ZPD in the way in which 'she used her awareness of students' current levels of attainment in writing and her own expert knowledge of literary genre to devise the scaffolds that would support and guide students to new writing achievement' (p. 107).

The teacher's written comments on written tasks were positive and very focused, and the students realised how much she cared about their work and how important this feedback was by the immediacy of her response. She said, for example, (p. 98):

> I grab children when they arrive in the morning, much to their shock horror, and say, 'Oh I've marked your books and they're here, can I just show you yours?' And I talk to them about it so that when we begin the next writing session they're tuning into that.

In this particular class, there was an overwhelming feeling of enjoyment and interest in writing, whether students had been identified as higher or lower attainers. All had a positive sense of themselves and could reflect on their own strengths.

More broadly, Wragg et al.'s (1998) study of effective literacy teaching in primary classrooms also reflects the need for high levels of teacher expertise to support children's literacy acquisition effectively, especially among those who experience difficulties, and expert knowledge of collaborative and inclusive reading strategies in which those with needs can be included. This study identified ten factors that characterise successful literacy teachers, in particular as they relate to reading, from a project researching the effective teaching of literacy at primary level:

- A high level of personal enthusiasm for literature, some even supplementing the school's reading resources with their own personal collection of books.
- Good professional knowledge of children's authors and teaching strategies.
- Literacy being made very important, within a rich literacy environment.
- Celebrating progress publicly and increasing children's confidence.
- Being able to individualise and match teaching to pupils, particularly in terms of their reading interests.
- Systematic monitoring and assessment, though the form of it varied.
- Regular and varied reading activities.
- Pupils being encouraged to develop independence and autonomy, attacking unfamiliar words, taking their own reading forward, or backing their own judgement as authors.
- A notably high degree of classroom management skill and good-quality personal relationships with pupils, with some of the highest 'on-task' scores we have recorded.
- High positive expectations, with children striving to reach a high standard, whatever their circumstances.

(Wragg et al., 1998, pp. 265–66)

It is particularly important for teachers to differentiate and match tasks to learners who are 'less able and more reluctant readers […] Intimate knowledge of available reading materials and individual

children themselves' is required, 'taking account not only of vary-ing levels of ability, but also of individual personal interests' (Wragg et al., 1998, p. 206).

EFFECTS OF PUBLIC VISIBILITY OF LEARNERS' LITERACY NEEDS

Students acquire literacy, behave, and construct their sense of them-selves as literacy learners to a great extent within their classrooms. As Wearmouth et al. (2009, p. 33) note:

> Participation in the practices of the classroom relates to active involve-ment in classroom activities and also to the sense of self both as able to make a legitimate contribution to those activities and as belonging to the classroom community.

As students participate, they 'develop or preserve a sense of' them-selves that they 'can live with, have some fun, and fulfil the require-ments of' (Wenger, 1998, p. 6) the literacy learning goals of that class. Without such active participation and construction of the self as able to become literate, students are not included (Wearmouth et al., 2009).

In the classroom a particularly important factor that contributes to feelings of poor self-worth is the visibility of information relating to how a child performs relative to peers. There are many adults who can recall being humiliated by a teacher's public demonstration of their lack of achievement in literacy in comparison with peers. However unintentional this may have been on the part of the profes-sional concerned, the fact remains that many adults have had upset-ting experiences which they still remember vividly.

Research evidence from studies conducted in mainstream class-rooms suggesting that, for children who experience difficulty in learning, public comparison with higher achieving peers can be very damaging has been available for a long time, as Ames and Archer (1988) demonstrated over 30 years ago. In a UK study (Riddick, 1996) of the personal experiences of 22 students identified as 'dys-lexic', and their families, the students reflected on their dread of 'visible public indicators' (Riddick, 1996, p. 124) of their difficulties in literacy, such as reading aloud and always being the last to finish

work. These students had very strong views about the key qualities of the 'best' teachers: a propensity to offer praise and encouragement linked with understanding of the difficulties experienced by the learner. The 'best' teachers were able to enter the learner's world and would help rather than humiliate learners, adapt work and explain clearly, not shout, have a sense of humour, and treat all learners as if they are intelligent. The worst teachers, on the other hand, are impatient and shout, criticise and humiliate learners, ignore some and show they consider some 'useless', are insensitive to learners' literacy needs, blame them for their problems and call them 'lazy'.

In Chapter 1 above we discussed an interview held with 22-year-old 'James' that illustrates some of the issues related to effective support for literacy needs in classrooms (Wearmouth, 2004a, pp. 60–67). We noted how placement in the lowest ability groups for reading and writing in his class and being 'called out in front of the class' on account of serious difficulties in literacy acquisition, much later identified as dyslexia, in his primary school led to him feeling really targeted and singled out. James was, in fact, highly intelligent, and being separated from competent literacy learners in the classroom for lessons on basic phonics resulted in feelings of hopelessness, helplessness, and frustration.

CULTURAL RESPONSIVENESS

In recent years it has become increasingly obvious that, to enable students in schools from an increasingly diverse range of cultural backgrounds to acquire literacy to a standard that will support them to achieve academically, it is important for teachers to adopt pedagogy that is responsive to, and respectful of, them as culturally situated. As Rogoff (2003, p. 3) comments: 'We are prepared by both our cultural and biological heritage to use language and other cultural tools and to learn from each other.' It is obvious, therefore, that when the home cultures of students in any one school vary widely, the tools and frames of reference they appropriate for literacy learning outside the school may well also vary to a significant degree. There are very important reasons why pedagogy in schools should be responsive to the cultural backgrounds of students. Children learn to speak, think,

read, and write within their own cultural contexts. Their frames of reference for doing these things come from these contexts. Teachers need to create a means to mediate students' own cultural contexts and the school cultural context (Wearmouth et al., 2011). Literacy learning and its context are not independent of each other. The acts of reading and writing have meaning within a context. Teachers need to create the safe spaces in which these acts can be understood (Sleeter, 2011). Major pedagogical challenges can arise when the literacy activities and practices of the school differ substantially from those in students' homes and communities, and where teachers have little or no understanding or appreciation of those home and community literacy activities (Glynn, Wearmouth and Berryman., 2006). When this happens, the literacy knowledge and practices students bring with them to school are neither validated nor affirmed by the school's literacy practices.

The way in which a lack of understanding can feel threatening to oneself and can lead to feelings of anxiety or hostility is illustrated by an inmate of a UK prison who recalls in relation to his own school experiences, 'a cocktail of … um … conflicts there all the time' as he tried to cope with the expectations of a mainstream London school that conflicted with those of home:

> I was weak in certain subjects, like English mainly, because I tend to write the way I speak. I'm born here my parents are from the West Indies. I am in an English school I had to cope with the different … criteria because at home it was like a cross between Caribbean where we tend to speak more Patois or broken English. School was like trying to do it faithfully. … You get to learn … how important language is for you to fit. … and then, like … I might get homework to do and I'll ask my dad and he will say no, it's done this way, which is, their schooling was from the old grammar, and it's always a conflict and I would always believe what my father had said because he was a father figure. … Yes, and then it was completely wrong, and eventually you get frustrated, and I am not going to do this, and you just sort of throw it out.
>
> (Wearmouth, unpublished interview transcript)

Elsewhere, and branded into the memory of the author of this paper, is her anger and sense of futility when her secondary students in West

Cameroon, West Africa, when taking an English Literature examination paper set by an English university examination board, were faced with an 'unseen' poem that began:

> For days these curious cardboard buds have lain
>   In brightly coloured boxes. Soon the night
>   Will come. We pray there'll be no sullen rain
>   To make these magic orchids flame less bright.[1]

The students were not even given the title of the poem (Scannell's *Gunpowder Plot*) as a cue into what the poem was about. Clearly the examiners in England had little understanding that the poem might be completely divorced from the prior frames of reference of students brought up in a Cameroonian context. Pedagogy that is culturally responsive and takes account of the social-situatedness of literacy learning in schools by definition avoids such disjunction. It includes, as Gay (2010, ibid.) comments 'seeing cultural differences as assets' and creating caring communities of learners where individual differences in culture and heritages are valued, using 'cultural knowledge of ethnically diverse cultures, families and communities to guide curriculum development […] and relationships with students', mediating imbalances of power in classrooms and 'accepting cultural responsiveness as endemic to educational effectiveness in all areas of learning for students from all ethnic groups'.

A number of educators assert that teachers in schools should be aware and take deliberate account of the 'funds of knowledge' (Moll et al., 1992; Gonzalez et al., 2005) in students' lives. Most children spend their first few years living at home with parents, siblings, and other immediate and extended family members and learn to use language to enhance social and cultural relationships with adults and peers. Before entering pre-school or school students are already participating in communities of practice, and may be proficient in the stories, songs, music and in engaging in conversations with both adults and peers about cultural events that take place in their homes and communities (Rogoff, 2003). In some communities, children may have acquired literacy in schools outside the regular state school system. Duranti, Ochs, and Ta'ase (2004), for example, draw attention to the function of religious schools in

a Samoan context in promoting children's literacy acquisition in many countries:

> For centuries, religion has promoted literacy. Jews, Muslims and Christians alike rely on written scriptures and instruct their congregations how to read passages within them. ...Far more than public schools, religious schools serve as the cornerstone of literacy across nations.
>
> (Duranti et al., 2004, p. 159)

In the UK, many Bangladeshi British children in Gregory's (2004) Spitalfields study in East London were involved in out-of-school Qur'anic classes and/or Bengali classes of up to 30 children where the teaching was very formal and the children's role was to listen, repeat, practise, and be tested.

There is an important question about how learners can take the step 'from speaking to understanding writing on a page or screen, to realise that knowledge of life and language can help them make sense of words and texts?' (Gregory, 1996a, p. 95). Gregory advocates addressing the issue of building from the known into new literacy acquisition by explicit scaffolding of children's learning through:

- recognising children's existing linguistic skills and cultural knowledge and building these into both teaching content and teaching strategies;
- limiting the size of the reading task by introducing explicitly common new lexis and language 'chunks';
- modelling chunks of language orally and in an idealised way through puppets and/or songs and socio-dramatic play;
- devising home-school reading programmes which recognise the role of both parent and child as mediator of different languages and cultures and which families feel comfortable with.

(Gregory, 1996a, p. 112)

DIFFERENT CONCEPTUALISATIONS OF THE TECHNICAL PROCESS OF LITERACY ACQUISITION

Encouraging students' positive identities as literacy learners is fundamentally important in addressing barriers to literacy learning. So, too, is teachers' familiarity with the range of common, in some ways

conflicting, conceptualisations of the technical process of literacy acquisition. Different conceptualisations lead to important differences in the basis on which teaching in classrooms is planned, and interventions designed to address individual students' barriers to literacy learning are built.

If we take the example of reading, fundamentally this is about the construction of meaning. However, there are a number of different views about technical processes. Over time, two have dominated: so-called 'bottom–up' (phonics-based) and 'top-down' (whole-text, meaning-based) approaches.

BOTTOM-UP, PHONICS-BASED APPROACHES

From a 'bottom–up', phonics-based view, learning to read means acquiring the rules about letters and sounds in written language in order to decode the abstract alphabetic code through making the link between symbols and sounds. This view sees reading as a series of small steps to be learned one by one. Then comes the process of reconstructing the author's meaning. Components of the phonological system[2] include phonemic awareness and phonological knowledge:

- phonemic awareness, broadly, is the ability to hear and manipulate sounds in speech. It therefore seems to provide a strong foundation for the development of decoding skills. Children identified as making poor progress in reading are frequently weaker in phonemic awareness than competent readers;
- phonological awareness usually includes larger segments of speech, for example, syllable and rhyme. There is strong experimental evidence that many students who experience difficulty in literacy learning exhibit deficiencies in phonological processing (Stanovich, 2000). It is crucial that children develop this knowledge early on in their schooling, for example, through exposure to poems, rhymes, songs, shared books with repeated readings, and so on.

Some students who experience difficulties in literacy acquisition may be identified as having severe deficits in the ability to make

sound–symbol links. It implies teaching methods which emphasise the mastery of phonics and word recognition and highlight the significance of phonics, exercises with frequent blends and digraphs, attention to every letter of the word, in left-to-right order (Adams, 1994), and so on. The assumption is that, with adequate practice, children will be able to understand written text. This approach might seem to be a logical response to the kind of visual and auditory difficulties listed above. However, there is a strong argument for advocating great sensitivity here. Focusing on phonics to the exclusion of other techniques may be experienced by students as boring and demoralising and may well prove problematic if the tasks and activities become so focused on mechanics and so fragmented and decontextualised that the social and meaning-making qualities of literacy activities are degraded or destroyed (Glynn, Wearmouth and Berryman., 2006).

TOP-DOWN, MEANING-BASED APPROACHES

The second approach views reading as the active *construction* of meaning, not simply the decoding of visual symbols into sounds. The reader is assumed to have expectations of what a text might be about, and then to test these expectations and confirm or reject them as s/he proceeds, the so-called 'psycholinguistic guessing game' (Goodman, 1996).

> ... as we read, our minds are actively busy making sense of print, just as they are always actively trying to make sense of the world. Our minds have a repertoire of strategies for sense-making. In reading, we can call these psycholinguistic because there's continuous interaction between thought and language.
>
> (Goodman, 1996, pp. 110–11)

According to Goodman, readers do not need to pay attention to every single part of every word to read a text.

> Readers become highly efficient in using just enough of the available information to accomplish their purpose of making sense.
>
> (Goodman, 1996, p. 91)

Goodman is highly critical of phonic instruction for children with difficulties in the area of literacy development:

> ... much misunderstanding still exists about reading and written language in general. I believe that this confusion exists largely because people have started in the wrong place, with letters, letter-sound relationships and words. We must begin instead by looking at reading in the real world, at how readers and writers try to make sense with each other.
>
> (Goodman, 1996, pp. 2–3)

This approach has been linked with the whole-book/whole-language approach based on the concept of learning to read through reading, even for students who experience literacy difficulties. There are many examples across the world of reading programmes of this kind which combine emphasis on meaning and interest in text with awareness of the part that others, including peers and parents, can play. In the UK, for example, Waterland, an infant teacher, operated from an assumption that reading may be learned by young children working alongside competent readers through the so-called 'Apprenticeship Approach' (Waterland, 1985).

'INTERACTIVE' APPROACH

A third, many might say more balanced (McNaughton, 2002), view of reading is the 'interactive' model which suggests that readers use information simultaneously from different sources. Identification of sounds with symbols interacts with the anticipation of what the word is likely to be from the context of the text. Weaknesses can be compensated by strengths, with some readers relying more heavily on visual and auditory cues, others on meaning and context. Stanovich (2000) calls this process the 'Interactive Compensatory' model.

ADDRESSING DIFFICULTIES IN READING

Across the world there is a wide range of teaching programmes and teaching approaches used to support reading acquisition. This book adopts the view that careful planning is required to address individuals' learning needs within a broad, balanced view of literacy and a

global understanding of them with their own interests and strengths as well as within the context of the school and classroom curriculum. The process might begin by ensuring students are engaged in inter-active learning conversations throughout their literacy activities. This includes responsive feedback relating to students' own experience of literacy learning needs, and feed forward to identify the next most appropriate learning steps.

A balanced view of the reading process is of 'a complex, multifac-eted activity' which requires 'broad-based instruction':

> Children need to learn processing skills, using context and knowledge of syntax to focus on the general meaning of the whole, and also decoding skills focusing on individual letters and words. They need specific teach-ing of both 'top-down' and 'bottom-up' skills; a certain amount of phonic instruction; careful monitoring in order to give early help to those who make a slow start; interesting meaningful texts; teachers who are enthusi-astic about literacy throughout the whole primary range; encouragement from home; and lots of practice.
>
> (Wragg et al., 1998, pp. 32–33)

For the sake of clarity it is useful to separate out ways to address diffi-culties related to sound–symbol identification, the teaching of phon-ics and phonological knowledge, word recognition, and so on from meaning-based approaches; the teaching of strategies for improving comprehension; vocabulary knowledge; reading fluency, and so on, whilst acknowledging the interactive nature of the process.

TEACHING FROM A BOTTOM-UP PERSPECTIVE

To teach phonics well teachers have to be knowledgeable. Tompkins identifies the following as important components of teaching pho-nological knowledge:

Letters of the alphabet
Consonants. Most represent a single sound (but c, g, and x are excep-tions according to their position in a word and letters that follow them. W and y can represent either consonants at the beginning of a word, (e.g. way, yacht, yes) or vowels (in the middle or end of a word, e.g. blown, play, by). The combination of some consonants may be blends or digraphs.

Blends are made up of two or more phonemes and they are consonants that appear next to each other in a word (e.g. green, splash).

Digraphs are consonant combinations that represent single phonemes (e.g. church, that, wish, and photo).

Vowel sounds. Their combinations are complex because they can represent several sounds and they are difficult for some children to record (writing) or identify (reading).

Rimes and rhymes: One-syllable words and syllables in longer words can be divided into two parts, the onset and the rime. The onset is the consonant sounds, if any, that precedes the vowel, and the rime is the vowel and any consonant sounds that follow it. For example, in show, 'sh' is the onset and 'ow' is the rime, and in ball, 'b' is the onset and 'all' is the rime. For 'at' and 'up' there is no onset; the entire word is the rime. Research has shown that children make more errors decoding and spelling final consonants than initial consonants and they make more errors on vowels than on consonants (Treiman, 1985). These problem areas correspond to rimes, and educators now speculate that onsets and rimes could provide the key to word identification.

(Tompkins, 1997, p. 103)

There are two main approaches to teaching phonics acquisition, so–called 'synthetic' and 'analytic' phonics. Given that in some countries, for example, England, where there is a mandatory requirement for children to undergo a test of their phonic knowledge at the age of six (Standards and Testing Agency, 2021), it is important for teachers in particular to be aware of the difference between them:

- In a synthetic phonics approach, letter-sound correspondences are taught in isolation and students are required to blend individual letters together to form whole words. At the beginning of the reading process, a small number of letter sounds are taught, and children are shown how to blend these sounds to pronounce unfamiliar words. Other groups of letters are taught and then blended. Some writers insist that curriculum guidelines are required for specific exercises attending to letter/sounds and 'subsyllabic sound units'.
- Analytic phonics involves the analysis of consonants, vowels, blends, digraphs, and diphthongs taught within the context of whole words. Teaching begins at the level of the whole word and involves

pointing out patterns in the English spelling system. Typically, children are taught one letter sound per week and shown pictures and words beginning with that sound. Then they are introduced to letter sounds in the middle of words, and so on. At some stage the teacher may show children how to blend consecutive letters in unfamiliar words, for example, 'buh-ah-tuh, bat'. Some writers contend that specific exercises are not necessary as children gather this information incidentally as they are exposed to text-rich environments and programmes.

(Wearmouth, 2009, p. 101)

Multi-sensory approaches

One way to reinforce the links between sounds and symbols in order to develop skills in phonics is to take a multi–sensory approach to teaching. Multi–sensory programmes use all modalities – auditory, visual, kinesthetic, and tactile – to support reading acquisition. Many reading programmes incorporate the principle. Teachers and families can develop materials to ensure that the activities are multi–sensory. We illustrate this approach below, in particular as it can be related to spelling and the use also of audiobooks.

WORD RECOGNITION

As Eldridge (1995, p. 165) commented nearly 30 years ago, 'The 100 most frequently used words account for more than 55% of the words children read and **write**, and the 300 most frequently used words account for 72%'. From this information there is a very strong argument for supporting learners to be able to recognise these words on sight. Having said this, many commonly used words are phonically irregular in their letter/sound associations, for example, 'they', 'what', 'are'. Learning letter sequences can be challenging for some children, for example, those with dyslexic tendencies who have poor visual perception and retention. Most children learn to recognise commonly used words without any special 'drill' or systematic, sequential teaching but others need specially focused multi–sensory teaching very similar to the approaches discussed in the spelling section below.

VOCABULARY KNOWLEDGE

For most children vocabulary is acquired rapidly and incidentally in the context of normal reading (Stahl, 1998; McNaughton, 2002) without any explicit instruction, as a result of engaging in reading or what is sometimes called 'reading mileage' (Graves & Watts–Taffe, 2002, p. 142). Reading to children provides the opportunity to discuss unknown words (McNaughton, 2002). However, just listening to stories may not always lead to vocabulary growth. Teaching new vocabulary within the context of text may need to be carefully planned (Buikema & Graves, 1993):

- pre-teaching of vocabulary (Nicholson & Tan, 1997) before reading using flash cards of words likely to cause difficulty, can increase children's vocabulary knowledge, for example. New vocabulary from the text can be used in advance for students to predict the content of the story or article;
- sorting and classifying words prior to reading a text can provide an advance organiser for strategic reading and conceptual learning from the text (Whitehead, 1993);
- active discussion of definitions of words and activities that involve classification of new vocabulary can be effective, using questions, for example, such as:
  - o What category does it belong to?
  - o What is it like?
  - o What are some examples (if it's a group, class, or abstract concept)?
- memory of new words can be encouraged by thinking aloud about them in ways that are personally meaningful, or working out what words mean from semantic and syntactic cues.

DEVELOPMENT OF READING FLUENCY AND COMPREHENSION

Good readers know what they have to do to get meaning from texts (Pressley, 2002). However, many readers who experience difficulties in literacy may need explicit teaching about comprehension strategies and guided practice in using them, as well as opportunities to

engage with texts. It is essential to make children aware that they have knowledge that they can bring to bear to make the act of reading meaningful, and that they can comprehend in light of their past experiences. This is especially important where learners experience difficulties. Learners might be encouraged to ask: What do I know? What do I want to know? What have I learnt?

SUPPORTED READING ACTIVITIES

There are examples from around the world of supported collaborative reading activities that are effective in offering less skilled learners guidance or assistance from more competent others who may be peers or classroom assistants in schools or colleges, or family members or friends at home. Three such examples that have a history over time of successful implementation in a variety of national contexts and have been replicated many times are 'reciprocal teaching' (Palincsar & Brown, 1984), 'Pause Prompt Praise' (Glynn & McNaughton, 1985) and 'paired reading' (Topping, 1995, 2001). A more recent supported reading initiative is the use of audiobooks.

Reciprocal teaching

Palincsar and Brown (1984) at the University of Michigan in the USA reported their seminal research study into the successful use of 'reciprocal teaching' to enhance reading comprehension. This technique focused on four strategies to assist understanding of the text and joint construction of its meaning: generating questions from the text, summarising its content, clarifying areas of difficulty and predicting the content of subsequent sections of text based on the content and structure of the current portion. Learners were taught the terminology of reciprocal teaching in each of the four strategies prior to the start of the procedure. Teachers and learners took turns to lead discussion about the meaning of a section of text that they were jointly trying to understand and memorise.

> The basic procedure was that an adult teacher, working individually with a seventh-grade poor reader, assigned a segment of the passage to be read and either indicated that it was her [i.e. the adult teacher's] turn to

be the teacher or assigned the student to teach that segment. The adult teacher and the student then read the assigned segment silently. After reading the text, the teacher (student or adult) for that segment asked a question that a teacher or test might ask on the segment, summarized the content, discussed and clarified any difficulties, and finally made a prediction about future content. All of these activities were embedded in as natural a dialogue as possible, with the teacher and student giving feedback to each other. ...

Gradually, the students became much more capable of assuming their role as dialogue leader and by the end of ten sessions were providing paraphrases of some sophistication.

<div align="right">(Palincsar & Brown, 1984, pp. 124–25)</div>

The success of that initial research project has been replicated many times with pairs of tutors and tutees and within small groups.

Pause, prompt, praise

Glynn and McNaughton's (1985) *Pause, Prompt, Praise* was originally developed in South Auckland, New Zealand, to be used at home by learners experiencing difficulties in reading acquisition. It is based on the theoretical perspective that proficiency in reading results from the ability to use every relevant piece of information around and within a text to understand it. It is designed to facilitate opportunities for learners to self-correct errors and practise strategies for problem solving. Tutors are taught to pause to give time and space for learners to self-correct when they make a mistake, prompt to suggest word meaning through focusing, for example, on the reader's background knowledge of the content of the text, or sound–symbol identification, and praise to acknowledge a learner's effort and reinforce skills of independence. The authors of *Pause, Prompt* and *Praise* emphasise the importance of supplying reading material at an appropriate level so that the learner meets some unfamiliar words but can read enough of the text to make sense of it. McNaughton et al. (1987) found that pausing before correction leads to more learner self-correction and an increase in reading accuracy. Consideration of the type of errors made by the learner enables the tutor to focus prompts on meaning, or on the graphical features of a word. Careful use of praise allows the tutor to focus on reading behaviour.

Paired reading

Topping's (1995, 2001) 'Paired Reading' method is typified by the learner choosing high interest reading material from any source, irrespective of its readability level (except that it should be within the reading competence of the helper). The 'rules' are as follows:

> Families [or in schools this might be peers or classroom assistants] commit themselves to an initial trial period in which they agree to do at least five minutes Paired Reading on five days each week for about eight weeks. [...] all must use the same technique – the target child is deliberately asked to quality control the tutoring they receive.
>
> [...] Tutors support children through difficult text by reading together – both members of the pair read all the words out loud together, the tutor modulating speed to match that of the child, while giving a good model of competent reading.
>
> On an easier section of text, the child may wish to read a little without support. The child signals for the tutor to stop Reading Together, by a knock or a touch. The tutor goes quiet, while continuing to monitor any errors, praise, and pause for discussion. Sooner or later while reading alone the child will make an error which they cannot self-correct within 4 or 5 seconds. Then the tutor applies the usual correction procedure and joins back in reading together.
>
> The pair continue like this, switching from reading together to reading alone to give the child just as much help as is needed according to the difficulty of the text, how tired the s/he is, and so on. Children should never 'grow out of' reading together; but should always be ready to use it as they move on to harder texts.
>
> (Wearmouth, 2009, pp. 126–27, adapted from Topping, 1995, p. 46)

Use of audiobooks

Some researchers have noted how reading simultaneously with listening to recordings of the exact words of the text can assist and develop reading speed and fluency. For example, Chomsky's (1978) tape-assisted reading involved students practising until they could read a passage at the same rate as the tape recording of the story. Reading fluency, confidence, and positive responses to text can be enhanced through opportunities to read along with a recording of

the text (LeFevre et al., 2003). Repeated exposure to text, aurally and visually, can reinforce word recognition, thus freeing up cognitive 'energy' for comprehension.

In recent years there has been rapid growth in the use of audiobooks that allow children to follow the text while a narrator reads. A number of benefits for the use of audiobooks have been identified. Best (2020, p. 2) from a review of the literature concludes that there is evidence that engagement with audiobooks can have a strong positive influence on reading skills and enjoyment, especially given that some children can understand audiobooks which are beyond their measured reading comprehension levels. Further, disengaged boy readers are more than twice as likely to say that they read fiction on screen compared with their more engaged peers (25.4% vs 9.8%) (Clark & Picton, 2019). Using audiobooks can remain private to the individual learner, with the title unknown to others. If a learner wants to 'read' a lower- ability or -aged book they can do so without scrutiny from peers, thus avoiding the humiliation resulting from public visibility of reading difficulties. Listening on a device might also be more 'fun' than reading a paper book, particularly if a production features a dramatic reading.

As noted in Chapter 6 above, the charity Calibre Audio was established in 1974 to make audiobooks available free to individuals who, for a variety of reasons, have difficulty accessing print materials.[3] An overview of the range of audiobooks from the charity is available at https://www.calibre.org.uk.

ADDRESSING DIFFICULTIES IN WRITING

It is clear that reading is closely linked to writing. Readers interact with words, grammatical structures, and other language patterns in texts to construct meaning from existing texts. Writers start with ideas and represents these in grammatical structures and other language patterns in texts to convey meaning.

In the same way as reading, approaches to writing might sometimes be classified as either a traditional focus on surface features and the mechanics of text, grammar, and spelling (Smith & Elley, 1997), or else a focus on processes such as brainstorming, drafting, revising, editing, and publishing content and meaning (Graves, 1983).

FOCUSING ON SURFACE FEATURES AND THE MECHANICS OF TEXTS

In this section we look first at the issue of spelling, for it is that with which many of those who experience literacy difficulties find problematic when they express themselves in writing.

Whether or not it is important to learn to spell accurately is a question that is fraught with controversy. In the English language the alphabetic symbols bear only some relationship to the sounds of the language. Meaning is integrated into the spelling system in English. For example, the syllable 'sign' in the words 'signature', 'assign' and 'signal' all derive from the Latin word *signum* (sign), hence are spelt the same way in each word despite differences in pronunciation. English also contains some logographs where one character is a unit of meaning, for example, '&' and 'etc.' (Barton, 1995). In addition, homophones, words that sound the same and are indistinguishable in speech are differentiated in writing by their spelling. Each one has to be learned separately:

There is a diversity of approaches to teaching spelling. For example, it can be approached from a holistic, whole-word approach, or from a partist approach to individual letter-sound identification and combinations of letters into words, or syllables may be 'chunked' into memorable sections. Choice of words may be made from what the learner needs and wishes to spell, for example, personal lists of spellings compiled from errors made in written work. Or words might be grouped according to similar letter-sound patterns within words, for example, phonically regular combinations of letters and sounds that the learner is already expected to know. Learners may spend a great deal of time learning large lists of words but may still not be able to generalise them correctly into their writing.

Reason and Boote (1994) outline four developmental stages of spelling acquisition. At Stage One, students can recognise rhyme, blend spoken sounds into words, and make some attempt to represent phonic structures at the beginning of words in letter form. At Stage Two they can write single letter sounds, simple, regular single syllable words, and the more common single syllable irregular words. At Stage Three they can write words with consonant blends (for example, 'tr-', '-nd') and digraphs (for example, 'sh'); vowel digraphs (for example, 'ea', 'ow') and the 'magic' 'e'; and at Stage Four they can spell most common words correctly (Reason & Boote, 1994,

p. 133). In order to identify the stage of development a student has reached in his/her spelling it is very important to take the time to scrutinise samples of writing very carefully. There is probably no one rule about how long a learner might remain at one stage of spelling development. Perhaps the most important issue is to ensure that if a learner is 'stuck' at one stage there is appropriate support to move on to the next.

Multi-sensory approaches to spelling acquisition

In order to avoid difficulties in spelling later on, children need to be familiar with vowels and syllables at an early stage and be taught techniques for learning the spelling of words they want or need to use in writing. Learners should probably always be encouraged to memorise words and then write them down, rather than simply copy them.

Below we have outlined two particular multi–sensory approaches to teaching spelling. These approaches, with their clear breakdown into specific steps, would lend themselves to being implemented at home or at school in either peer–tutoring or cooperative learning contexts. Each learner might be encouraged to keep a spelling diary, each page including space to write the master version of up to ten words on all days of the week, with boxes to record daily and weekly review scores and spaces for daily comments from the tutor and weekly comments from the teacher.

Reason and Boote's (1994) approach

Reason and Boote (1994) describe a multi-sensory approach which has been adapted and used in many contexts very successfully. Whilst time consuming on first use it can, in their view, be scaled down as learners gain confidence and competence in spelling:

- look at the word, read it, and pronounce it in syllables or other small bits (re-mem-ber; sh-out);
- try to listen to yourself doing this;
- still looking at it, spell it out in letter-names;
- continue to look, and trace out the letters on the table with your finger as you spell it out again;

- look at the word for any 'tricky bits'; for example, gh in right (different students find different parts of a word 'tricky');
- try to get a picture of the word in your mind: take a photograph of it in your head!
- copy the word, peeping at the end of each syllable or letter-string.

Highlight the tricky bits in colour (or by some other means)

- Visualise the word again
- Now cover it up and try to write it, spelling it out in letter-names
- Does it look right?
- Check with the original
- Are there some tricky bits you didn't spot (i.e. the parts that went wrong)?
- Repeat as much of the procedure as necessary to learn the words thoroughly.

(Reason & Boote, 1994, p. 138)

Bradley's (1981) approach

The current author has used a slightly different version of a multi-sensory approach (Bradley & Bryant, 1981) very successfully with students of a range of ages. The method consists of a series of steps:

The student proposes the word he [*sic*] wants to learn.

The word is written correctly for him (or made with plastic script letters).

The student names the word.

He then writes the word himself, saying out loud the alphabetic name of each letter of the word as it is written.

He names the word again. He checks to see that the word has been written correctly; this is important, as less able readers are often inaccurate when they copy (Bradley & Bryant, 1981). Repeat steps 2 to 5 twice more, covering or disregarding the stimulus word as soon as the student feels he can manage without it.

The student practises the word in this way for six consecutive days. The procedure is the same whether or not the student can read or write, and whether or not he is familiar with all the sound/symbol relationships, but it must not deteriorate into rote spelling, which is an entirely different thing.

The student learns to generalise from this word to similar words using the plastic script letters.

(Bradley & Bryant, 1981, quoted in Bentley, 1990, p. 3)

Guidelines that include a description of Reason and Boote's or Bradley's methods may be very useful to parents or families who may not know how most appropriately to help their child to learn new spellings. For learners with the most significant barriers to accurate spelling it may help them to reduce the number of new spellings to be learnt to a very few at the beginning, keep a list, check this regularly, and move on gradually.

Cued spelling

An alternative method of teaching spelling is Topping's (2001) 'Cued Spelling' that works on the principles of praise, modelling, swift correction of mistakes, and support from a tutor to avoid the fear of failure. The technique comprises ten steps:

1. the learner chooses words of high personal interest, irrespective of difficulty level;
2. tutor and learner check the spelling and put a master version in a 'Cued Spelling Diary';
3. the pair read the word out loud together, then the learner reads the word aloud alone;
4. the learner chooses reminders as memory cues for the written structure of the word: sounds, letter-names, syllables or other fragments of words, or personal mnemonic (memory) devices;
5. the pair repeat the cues together;
6. the learner then repeats the cues aloud while the tutor models writing the word down while it is 'dictated';
7. roles reverse and the tutor says the cues aloud and the learner writes the word down;
8. the learner repeats the cues and simultaneously writes the word;
9. the learner writes the word quickly and decides whether to recite the cues aloud; and finally,
10. finally, the learner reads the word aloud.

Each session ends with a 'speed review' where the tutor dictates all the target words quickly. The learner then checks the accuracy of

the words against the master copy. Target words which are incorrect are learned again using the ten steps. Different memory cues may be chosen. At the end of each week, the tutor dictates all the target words for the whole week. Together the pair decide what they wish to do about mistakes and whether to include them in the next week's target words.

FOCUSING ON THE PROCESS

If we imagine the human mind as processing information rather like a computer we might see the writing process as aiming at a series of goals which are organised in a hierarchy (Hayes & Flower, 1986) of planning, translating, and revising what has been written until a satisfactory end-product has been achieved. Planning involves generating information to be considered for inclusion in the text, and selecting and organising what is relevant. Lack of knowledge relating to subject content, and/or of the conventions and characteristics of different writing genres are likely to prove to be barriers at the planning stage. Hence this is a crucial stage for supporting learners' writing. Translation means converting the plan into text. Revising includes editing to correct grammatical errors as well as ensure conceptual coherence. Some teachers have encouraged carefully chosen peers in classrooms to act as buddies for the classmates to read and sensitively comment on their written drafts.

Support through planning and production of text

Wray (2002) suggests that it is important that strategies are taught at an early age to help children develop metacognitive skills.[4] An area that has been researched thoroughly in relation to students with difficulties in literacy development is the use of strategies intended to highlight planning processes and provide structure for the text. Examples of this are the use of writing frames to generate and organise ideas (Englert & Raphael, 1988; Graves et al., 1990), mind maps, paired writing, and 'scaffolded story writing'

Writing frames

Using writing frames can both support extended writing and encourage logical sequencing. They constitute a way of providing

learner writers with a support or 'scaffold', that offers, for example, some headings, subheadings, and connectives for linking paragraphs when writing an explanatory information text; the layout, greeting, opening sentence, and closure when practising a letter; and sentence openings for making contrasting points when presenting an argument.

At its simplest level this might be three steps: a beginning, a middle, and an ending. It might then move towards a six-part structure which, for story writing, might include introducing the people, describing the setting, the start of something, exciting episode(s), things resolving themselves, the end. This structure could then be gradually differentiated by answering the following questions:

- What is the title?
- Who are the main characters? What are they like?
- Who are the other characters? What are they like?
- What is the main part of the story? What do the main characters try to do?
- How does the story end?

Mind maps

'Mind-mapping' (Buzan, 2000) is another instance of a way to develop a structure for producing extended text. Many examples are available on the internet.[5] The learner is encouraged first to produce a visual representation of all those areas to be covered in the text before beginning on the written task. Those who experience difficulties in writing may benefit by separating out content from the technical aspects of producing the text by focusing on one before the other. Of course there is considerable overlap between the first process and the second.

Paired writing

In a further elaboration of the paired approach to literacy development, Topping (1995, 2001) produced a 'Paired Writing' framework for a pair working together, usually a more able writer (the Helper) and a less able one (the Writer), to generate text that might focus on whatever was needed. The first step is the generation of ideas, with

the helper using questions and writing notes on the writer's replies. Next comes drafting, ignoring spelling and punctuation, with (usually) the writer dictating the text. After this the helper reads the text aloud, followed by the writer. Then comes the editing when the writer marks out areas for improvement that might relate, for example, to clarify meaning, organise ideas, or correct spellings. The helper praises the writer and points out anything that has been missed. Following this, (usually) the writer copies out a good version, and the pair assess the text.

'Scaffolded story writing'

Narratives contain a number of elements such as comparisons, problem solving, exhortation, and persuasion, so can be seen as an early step towards later expository text (Montgomery & Kahn, 2003). Montgomery and Kahn (2003) note an interactive oral teaching strategy 'scaffolded story writing' that has been used as an interactive group activity to support struggling writers:

> In the scaffolded narrative method, questioning is used to help students build their comprehension, organisation, sequence of ideas, and metacognition. This questioning encourages students to become 'meaning makers'.
>
> (Montgomery & Kahn, 2003, p. 145)

The learning support teacher introduces the idea of an author, what s/he does and why, and teaches five elements of an effective narrative: interesting character(s), context, a credible problem, possible solutions to the problem, good ending (Apel & Masterton, 1998). The support teacher then sets up a series of questions about the stories the learners want to write and the learners discuss their ideas with each other. The approach comprises five steps:

Step 1: Draw a sequence story. [...] The students may use stick figures and simple drawings ... Some students need help in sequencing their stories properly

Step 2: **Describe the main characters [...]** including age, height, weight, body build, hair color, and style, eye color, clothes, family, favourite foods, things they like to do [...]

Step 3: **Begin writing the narrative [...]** with an interesting opening sentence or two to catch the reader's interest. [...] Students should follow their picture sequence when writing their narratives. They should also incorporate the information they compiled before they started writing the story, including the character descriptions.

The [teacher] uses a questioning technique throughout this intervention. [...]

The [teacher] needs to ask questions until a coherent story emerges, which sometimes occurs in stages. The [teacher] may get the first part down and then move on to the next part. Some stories change in the process as better ideas occur and the student revises his or her initial thoughts. It is best to get a first draft completed and then rewrite.

Step 4: **Write the story**. From the beginning, [the teacher] reinforces the idea that the story belongs to the student, and changes are never made without consulting the student. ...

Step 5: **Rewrite and correct**. Some students require corrections and help throughout the writing process. They need words to be spelt for them [...] Grammar is often incorrect, and syntax is sometimes awkward. Editing the final draft is the point at which these areas must be addressed.

[...] suggestions for change must be given diplomatically. When [the teacher] suggests a possibility and the student does not like it, the change should not be made.

(Montgomery & Kahn, 2003, pp. 146–47)

Montgomery and Kahn suggest that:

The editing process is an ideal point at which to teach language structure to students who want to learn, because it pertains to their stories. They want to make their stories the best that they can be. It is nice to have a final product of which they can be proud.

(Montgomery & Kahn, 2003, p. 148)

SUMMARY

In schools, becoming literate is often thought of as acquiring basic technical skills in order to be able to read, write, and spell competently. Difficulties in literacy that are experienced by students have

been seen as the result of deficiency in developing these skills and interventions have been designed to remedy this deficiency. More recently, however, many educators have recognised that it is not just the individual abilities of the learner that matter when students learn to read, write, and spell. Particular social features of the learning contexts are important too. The view that failure in literacy learning can result from social and arrangements that fail to support students' engagement with their learning rather than from attributes of individuals (Lave, 1993, p. 10) can lead to a very positive approach to overcoming the difficulties they have experienced. It has the advantage of giving teachers and students more control over learning in two senses. First, where failure to learn is seen at least in part as resulting from inappropriate teaching, curricula, or environment, then appropriate attention to these areas can lead to improved student learning. Second, it can take away a feeling of helplessness learned from repeated failure by both teachers and students and give rise to confidence that students will acquire literacy if appropriate strategies are devised to facilitate children's increasing participation in activities that will support literacy learning.

The social situation in which literacy activities take place helps to shape those activities and can support or hinder literacy development (Barton, 1995, p. 6). As Cambourne (2003) comments, what is learned cannot be separated from the context in which it is learned. The experiences and contexts in which literacy learning is embedded are critical in determining the learner's understanding and ability to use literacy skills such as reading, writing, and spelling. If students learn to read in contexts where competent reading is assumed to be the errorless reproduction of texts, they will understand, and later use, reading differently from those taught in ways which stress that reading is the construction of meaning from texts.

At the same time, each student with literacy difficulties is an individual. Each situation is unique. Each requires its own solution. There is no one easy option. As practitioners, teachers need to bear in mind the wider cultural and social factors, the school and curriculum context, and also factors related more specifically to the individual child.

Everything in the learning environment is seen as fundamental to learning: materials, interactions between teacher and students, interactions student to student, students' interactions with the learning

task, the way success and failure is mediated, and so on. School is an important context for students to develop a sense of self as able to read and write (Glynn, Wearmouth and Berryman, 2006). Personal identity as a literacy learner in the classroom is associated with:

- the kinds of literacy activities which students experience and in which they engage or are prevented from engaging;
- the process of scaffolding of new literacy learning by more expert others such as teachers and peers; and
- the messages that students hear or see about themselves and their literacy achievements, or failures to achieve.

As Glynn, Wearmouth, and Berryman (2006) note, however, the type of supportive learning relationship envisaged here is not restricted to partnerships between young learners and adults, but can operate also between learners and their peers. Research on reciprocal teaching and learning between siblings describes a synergy taking place in which learners play active, complementary, and more balanced roles in building on what they both know and in fostering their mutual learning. Numerous studies of the effects of peer support or peer tutoring on students' reading and writing testify to the power of this synergy. More skilled and interactive learning partners such as learners' challenging and exploring peers can also serve both as guides and collaborators (Rogoff, 2003).

NOTES

1 https://fromtroublesofthisworld.wordpress.com/tag/for-days-these-curious-cardboard-buds-have-lain/ – accessed 07.01.22.
2 The word 'phonology' comes from two Greek words: *φωνή*, English: phone – voice or sound; and *λογος*, English: logos – word or speech.
3 https://www.calibreaudio.org.uk/about/history – accessed 11.12.21.
4 Metacognition is, broadly, awareness of one's own thought processes, for example, planning how to approach a task or deliberate use of problem-solving strategies.
5 https://whimsical.com/mind-maps?ref=gmb&gclid=EAIaIQobChMI qaDe6Iqb9QIV0OJ3Ch1Csg_tEAAYAyAAEgLGWvD_BwE – accessed 05.01.22.

ASSESSMENT AND PLANNING FOR LEARNERS WITH SPECIAL EDUCATIONAL, OR ADDITIONAL LEARNING OR SUPPORT NEEDS

INTRODUCTION

It stands to reason that, if young people experience barriers to their learning and/or behaviour, whatever is planned to meet their needs – and, by law, the planning must take account of their and their families' views – should have, as its starting point, a rigorous assessment of their needs. In previous chapters we have discussed the view that learners may well not actively engage in learning activities in schools and colleges if they cannot see how it is in their interest for one reason or another. The 'assess → plan → do → review' cycle, as outlined, for example, in the *Special Educational Needs and Disability Code of Practice: 0 to 25 Years* (DfE, 2015, §6.17) in England, implies that teachers and others should have a good understanding of assessment as a starting point for planning to address the needs that have been identified. This chapter opens by explaining how some children can be supported to make huge learning gains and, consequently, will feel much more positively about themselves as learners if teachers, parents, and others clearly understand the power of some forms of assessment, monitoring, and focused feedback. It takes the issue of assessment in the early years as an example of how it should

be fit for the age and stage of a child's development and learning. It then continues by discussing:

- principles of different kinds of assessment of difficulties in learning
  - o summative and standardised;
  - o ongoing formative assessment and constructive feedback to students;
  - o criterion referenced assessment;
- assessment of particular aspects of difficulties identified within the four areas of need
  - o communication difficulties;
  - o specific difficulties in learning/dyslexia;
  - o behaviour seen as challenging in some way, including attention deficit/hyperactivity disorder and autism;
  - o sensory impairments, both visual and auditory; and
  - o physical impairments;
- the student's and family's perspectives on barriers to learning;
- statutory assessment of difficulties across the UK; and
- framework for planning to address difficulties at different ages and stages.

THE PLACE OF ASSESSMENT IN SUPPORTING LEARNING AND BEHAVIOUR NEEDS

In the field of education, there are a number of different frames of reference for understanding human learning and behaviour and, therefore, how these should be assessed, needs identified, and what the starting point might be for developing appropriate ways to meet those needs. For example, deciding whether a learning need is sufficiently serious for the child to be eligible for special or additional provision or support by definition means using a form of assessment that enables comparison with peers. It may be with the learning achievement and behaviour patterns of peers, or norms for sight, hearing, movement, and so on. For instance, in England, by law, a child or young person has special educational needs if he or she has a learning difficulty or disability which calls for special educational provision to be made for him or her (Children and Families Act, 2014, Part 3, §20(1)) and the educational provision that is required to meet the

needs is 'special'. This definition requires consideration of a number of issues. For example, how to

- measure 'significantly greater difficulty in learning';
- compare one student to the majority;
- gauge the contexts in which what is already provided is insufficient so that appropriate provision is therefore 'special'; and
- ensure that a child whose attainment levels are demonstrated to be very poor in comparison with peers does not feel so demoralised that s/he will not try any more. (There is plenty of evidence to indicate that assessment itself can serve to reinforce or undermine the motivation to strive for future achievement in schools (Murphy, 2002).)

Of course when we assess individuals we are not always aiming to justify for the use of additional resources. We do not always wish or need to compare one child with others. It is always important to have a sense of children's ongoing progress in learning through continuous formative assessment that can provide teachers and others with opportunities to notice what is happening during learning activities, recognise the level and direction of the learning of individuals, and see how they can help to take that learning further. Sometimes we want to know how much progress a child has made in comparison with previous achievement, so-called 'iterative' comparison, that is, comparison with oneself. Sometimes we need to know whether a child has reached a particular threshold or level in learning.

ASSESSMENT IN THE EARLY YEARS

A number of formal and informal assessments of children's progress, including their cognitive and physical development are normally carried out in the early years of a child's life in the UK.

EYE TESTS

Eye tests are offered routinely to newborn babies and children to identify any problems early on in their development. Within 72 hours after birth, parents are offered a physical examination of

their baby by a health professional, for example a doctor, midwife, nurse, or health visitor. This professional looks into the baby's eyes with an ophthalmoscope to check their appearance and movement. Further checks may be carried out when the child is between six to eight weeks old, between that point and compulsory school age, and on entry to school.

In the early years, looking at a young child's eyes can offer much information about how s/he sees the world:

- the child may not look at a speaker when s/he speaks;
- the eyes may look unusual, squint, or seem sensitive to light;
- the child may rub their eyes or have an excessive number of tears;
- s/he may tilt the head to look at something;
- s/he may be excessively clumsy, bump into things, and/or have poor balance; and
- when looking at something, the eyes should be still, and not drift.

Referral to an ophthalmologist or orthoptist if there is a concern about a young child's vision will give some indication of the degree of possible visual impairment.

TESTS OF HEARING

Children's hearing can be tested from birth onwards. This is really important, given that 'one to two babies in every 1,000 are born with a permanent hearing loss in one or both ears'.[1] In Britain, since 2006, babies have been screened to test their hearing within a few days of birth.

> [Babies] begin to develop language and communication from their earliest months, [so early screening means that] much can be done to positively support and encourage that development [...] when early identification of deafness is combined with effective early intervention, with parents and professionals working together, language outcomes for deaf children can be similar to those for hearing children.
>
> (NDCS, 2015a, p. 6)

Two screening tests are carried out soon after birth. The first tests for otoacoustic emissions (OAEs). It involves putting an earpiece in

the baby's ear with a microphone and speaker that emits a clicking sound. A properly functioning cochlea will produce a response that the earpiece picks up. The second tests auditory brainstem response, that is, that sound received by the cochlea is transmitted as a signal through the auditory nerve to the brain. Headphones are placed on the baby's head and three sensors on the ears. If, following the screening tests, a decision is taken that hearing aids will be needed, the audiologists will inform a range of services including, possibly, education and speech therapy, so that ongoing advice and support can be given to the family. Pre-school teachers of the deaf may offer the family advice about options relating to modes of communication. This may include the offer of tuition in signed communication and the management of hearing aids or cochlear implants, where used at home and in early years settings. They may also provide support to the family, including liaison with other professionals that may include social services, speech and language therapists, and audiology clinics.

ASSESSMENT OF PHYSICAL IMPAIRMENTS

Serious physical, as well as sensory, impairments may be identified at the Newborn and Infant Physical Examination (NIPE) carried out within three days of the child's birth. In addition to the hearing and vision tests outlined above, the baby is examined to ensure there are no problems with the hips, heart, and (for boys) genitals.[2] Once a child's difficulties have been identified, either at the newborn stage or later on in the early years, there is likely to be a referral to health professionals, including physiotherapists, occupational therapists, and speech and language therapists, and a plan is put into place to address the difficulties.

USE OF *STATUTORY FRAMEWORK FOR THE EARLY YEARS FOUNDATION STAGE*

These days, as a general principle, across the UK, comprehensive assessment of children's development continues after the newborn stage. To take one example, the *Code of Practice* in England (DfE/ DoH, 2015) requires providers to 'have arrangements in place to support children with SEN or disabilities', including 'a clear approach to identifying and responding to SEN […] at the earliest point' (§5.4).

The *Statutory framework for the early years foundation stage* (DfE, 2021c) requires education providers to review children's progress and share this with their families. The EYFS specifies requirements for learning and development and for safeguarding children and promoting their welfare. The learning and development requirements cover (p. 5):

- the areas of learning and development which must shape activities and experiences (educational programmes) for children in all early years settings;
- the early learning goals that providers must help children work towards (the knowledge, skills and understanding children should have at the end of the academic year in which they turn five);
- assessment arrangements for measuring progress (and requirements for reporting to parents and/or carers).

Three areas are identified as particularly important for 'building a foundation for igniting children's curiosity and enthusiasm for learning, forming relationships and thriving':

- communication and language;
- physical development; and
- personal, social and emotional development.

Four other areas are viewed as significant in strengthening and applying the first three:

- literacy;
- mathematics;
- understanding the world; and
- expressive arts and design.

So-called 'early learning goals' have been outlined as expectations for children within each area.

Both when the child is two years old and at the end of the reception year, written assessments must be provided for families and other professionals. The progress check when a child is aged between two and three,

[...] must identify the child's strengths, and any areas where the child's progress is less than expected. If there are significant emerging concerns, or an identified special educational need or disability, practitioners should develop a targeted plan to support the child's future learning and development involving parents and/or carers and other professionals (for example, the provider's Special Educational Needs Co-ordinator (SENCO) or health professionals) as appropriate.

(p. 18)

The EYFS Profile is usually completed in the final term of the year in which the child turns five.

Each child's level of development must be assessed against the early learning goals [...] Practitioners must indicate whether children are meeting expected levels of development, or if they are not yet reaching expected levels ('emerging').

(p. 20)

The *Code of Practice* (DfE/DoH, 2015, §5.28) advises that, in addition to the formal checks, early years providers should review the progress and development of all children regularly:

From within the setting practitioners should particularly consider information on a child's progress in communication and language, physical development, and personal, social, and emotional development.

Where a child's progress is of concern, providers should consider evidence from within and beyond the setting, from formal checks, practitioner observations, and any other detailed assessment needs. Any specialist advice should also inform decisions about whether or not a child has an SEN. All the information should be combined with the observations of the family and considered with them. Where a child has a significantly greater difficulty in learning than peers, or a disability, the setting should make that provision (§5.31) that should be matched to need.

Identifying and assessing the needs of young children for whom English is not the first language requires particular sensitivity. All aspects of a child's learning and development should be considered to

establish whether any delay is associated with learning English as an additional language or if it arises from a particular learning difficulty or disability. 'Difficulties related solely to learning English as an additional language do not constitute special educational needs' (§5.30).

All early years settings are expected to adopt a graduated approach of 'assess → plan → do → review' in organising special educational provision for young children. The initial assessment should be reviewed regularly to ensure that support is effective in matching need. More specialist assessment may be requested from specialist teachers or from health, social services, or other agencies beyond the setting if the child makes no improvement. Following assessment the practitioner and the SENDCo should consult with the parent/family and agree appropriate outcomes, what interventions and support should be put into place, what kind of progress might be anticipated as a result of the additional provision, and a date for review. The views of the child should also be taken into account. With support from the SENDCo, the child's key person or other agreed practitioner should oversee the implementation of the interventions or programmes agreed as part of SEN support. Effectiveness of interventions negotiated as part of SEN support should be reviewed by the agreed date. Families should be involved in planning next steps.

> This cycle of action should be revisited in increasing detail and with increasing frequency, to identify the best way of securing good progress. [...]. Intended outcomes should be shared with parents and reviewed with them, along with action taken by the setting, at agreed times.
>
> (§5.44)

Practitioners 'should consider involving appropriate specialists, for example, health visitors, speech and language therapists, Portage workers, educational psychologists or specialist teachers' (DfE, 2015, §5.48) if a child continues to make poor progress. If the child continues to make less than expected progress, despite additional relevant support and/or provision, the early years setting should consider requesting an Education, Health and Care needs assessment from the local authorities (LAs). Before a child moves into another setting or school, information should be shared by the current setting with the receiving setting or school, with the agreement of the family.

Identification through noticing

Observation is a very important aspect of identifying any particular cause for concern in children's learning in the early years. Such observations can provide information about how a child behaves, but not usually the reason for it. Observations may be informal and unstructured, or structured and systematic. In giving the example of literacy acquisition, Pavey (2016) comments that, informally, a teacher might 'start to wonder about' possible difficulties a young child experiences in literacy development if s/he displays any or all of the following:

- lack of interest in printed texts or books;
- reluctance to engage in, or slowness in completing, literacy-based activities such as retrieving or finding words;
- poor memory for nursery rhymes and word games;
- difficulty in recognising rhyme or repeating simple rhythmic patterns; and
- confusion in word choices.

Persistence and severity over time may suggest possible dyslexia (see discussion below).

Purposeful listening to a child's reading provides a useful opportunity to assess and monitor the acquisition of reading. Alternatively, an observer may well choose to use some kind of observation schedule that records aspects of the learning environment, including the teacher's teaching approach, availability, and nature of the texts in use, classroom displays of the outcomes of literacy-based activities that may affect the child's literacy learning, and so on.

FORMAL, NORM-REFERENCED (STANDARDISED) TESTS

Identification of the students who are 'different', and, therefore, who is eligible for special or additional educational provision may depend on the results of norm-referenced assessment designed to indicate a learner's achievement in comparison with others. Whatever is assessed here has to be measurable, otherwise what appears on the face of it to be clear and objective comparisons between learners is not possible. To understand the use of, and challenges associated with, standardised

testing, it is important to be aware of the test standardisation process, as well as a number of important concepts related to standardised tests and test procedures: 'measure of spread' of scores, validity, and reliability, the usefulness of standardised scores, and interpretations of percentile ranks, confidence bands, and reading ages.

STANDARDISATION PROCESS

One way to make test scores understandable and comparable with others would be to convert them to percentages (for example, 21 out of 36 would be 58 per cent, and 11 out of 30 would be 37 per cent, to the nearest whole number). However, these percentages on their own do not tell us either the average score of all the children taking the same tests and therefore how well or badly children are doing in comparison with peers, or how wide the range of scores are. Standardising a test score involves giving the test to a large, nationally representative sample, collating the scores, and then adjusting the mean (average) to a score of 100. It is easy to compare a child's result with this score of 100 so that we can see how far the score is above or below the average.

Standard deviation

An important concept associated with standardised tests is that of the 'measure of the spread' of scores, the so-called 'standard deviation'. This is usually set to 15 for educational attainment and ability tests. Irrespective of the difficulty of the test, about 68 per cent of students in a national sample will have a standardised score within 15 points (one standard deviation) above or below the average (that is, between 85 and 115) and about 95 per cent will have a standardised score within 30 points (two standard deviations) of the average (between 70 and 130). This means that approximately 2.5 per cent will have a score below 70, and 2.5 per cent a score above 130. These examples come from a frequency distribution, known as the 'normal distribution', which is shown in Figure 10.1. Clearly this kind of assessment can be useful in thinking about where the cut-off point might be for justifying the allocation of resources, but it does not address concerns in circumstances where those scoring just above the cut-off are not judged to need special or additional provision.
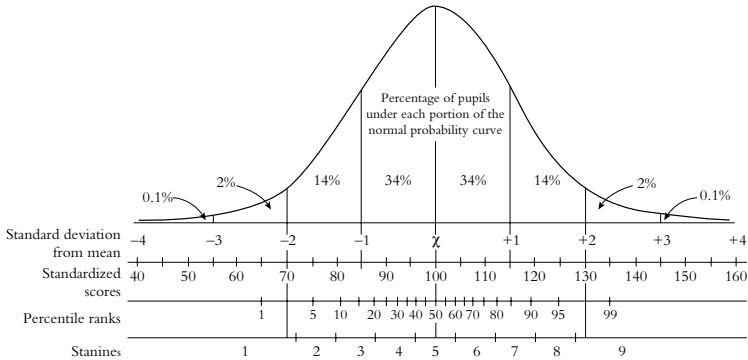
Figure 10.1 The relationship between standardised scores, percentile ranks, and stanines under a normal distribution curve.

VALIDITY AND RELIABILITY

The terms 'validity' and 'reliability' are often used in relation to both formal and informal tests. In general, the 'validity' of a test is the degree to which that test assesses what it is intended to test. We might ask, for example, whether a test of cognitive ability or reading that has been developed and standardised in Britain would be valid for young people from a completely different culture and new to the UK. We might also ask whether the test checks what we expect it to in the context in which it is being used, in other words, whether a test has 'context validity'.

'Reliability', on the other hand, generally means whether we would obtain the same result on the same test with the same cohort of individuals if we did the test procedure again.

USEFULNESS OF STANDARDISED SCORES

Standardised scores are often thought to be useful for a number of reasons. First, as we discussed above, standardisation produces a scale that enables a comparison of results so that we can see whether a child is above or below the national average. The date when the test was standardised is important here, however. An old test might well be out of date in terms of comparisons of individuals with national norms. Re-standardisation of an old test might well give different

national norms in relation to the current generation of children. Second, scores are standardised so that the children's ages are taken into account. When looking at a child's score on a standardised assessment against national norms, we will be able to tell whether that child is above or below other children of the same age. Third, using standardised scores allows us to compare a child's performance on a test in one area of the curriculum, for example, reading, with another, for example, mathematics. Or we might compare a child's performance in two different aspects of the same area, for example, reading comprehension and reading accuracy, which might be important in assessing whether a child is dyslexic.

PERCENTILE RANKS

There is a fixed relationship between percentile ranks and standardised scores when the same average score and standard deviation are used. The percentile rank is the percentage of students in the sample of the same age who gained a score at the same level or below that of the child's score. So performance at the 50th percentile indicates that the child performed as well as, or better than 50 per cent of the sample when age is taken into account.

CONFIDENCE BANDS

'Confidence bands' indicate the range of scores within which the accurate assessment of attainment is likely to fall. It is not possible to obtain the 'true score', that is the hypothetically perfect measurement of the individual's ability. Tests of the sort discussed here measure attainment, that is, the outcome of the student's work at any particular time, not 'ability'. In addition, however carefully educational tests are put together and administered, errors can result from factors such as the child's state of health, tiredness, time of day, lack of familiarity with formal assessments, and so on.

CONCEPT OF 'READING AGE'

'Reading age' is a very commonly used concept in relation to norm–referenced assessments of literacy learning, for example, in standardised assessments such as the Neale Analysis of Reading

Ability (Neale, 1999). Reading age is a measure that indicates the age at which a given raw score was the average. It is obtained by working out for each age group the average raw score of all of the children in the sample of that age and then smoothing out any irregularities in the resulting graph. Increases in performance with age are smaller for older age groups. This raises issues for using this measurement with older students, because accuracy and rate of reading would show no improvement beyond a certain point.

ISSUES ASSOCIATED WITH NORM-REFERENCING

Standardised tests alone are not designed to diagnose the root of difficulties in learning experienced by a learner. Anyone considering assessing a child needs to be fully conversant with test procedures, their aims, and rationale as well as wider cultural and social factors, the school, the area of the curriculum concerned, and also attributes of the individual child and above all, of course, what useful information the assessment can provide. Additionally, there are a number of issues associated with normative assessment, including equity and the link between achievement norms and teacher expectations of particular learners:

- First, in relation to the question of equity, some students may be allocated additional resources after achieving only very low scores on norm–referenced tests. However, there is a very grey area around the cut–off point above which other students will receive no additional provision.
- Then there is the issue that when an individual student's test score lies within the bottom 'tail' of a normal distribution curve, there is often an assumption that the student's innate ability is very low. Using standardised forms of tests means that we can pinpoint those students whose scores fall into the lowest two per cent or so. However, poor scores on normative tests can also mean that students' failure to achieve in school is automatically 'blamed' on poor ability, the family, or the ethnic group. Sometimes this is known as the 'deficit' view of children who experience difficulties. This view can limit teachers' expectations of what to expect of certain students and, therefore, lead to continued poor achievement (Rosenthal & Jacobson, 1968). It also absolves

schools from responsibility for that learner's progress in school rather than opening up discussion of how classroom teaching practices and the school curriculum generally can be adapted to suit students' learning and behaviour better. 'Success' and 'failure' on norm-referenced tests are not just the result of children's natural ability, however (Tomlinson, 1988). Some families cannot support their own children adequately as a result of the circumstances in which they find themselves and the way that schools are structured, as much as of a lack of innate ability in the child.

• Standardised measures of 'reading age' represent snapshots of a progression in literacy development. They are not fixed and exact measures of reading attainment. Reading is a learned behaviour that is closely aligned with development and age. Thus, a low reading score does not necessarily suggest general low ability, slow developmental growth, and so on. However, if we use these normative scores while considering the confidence bands attributed to the known score, we can then view reading ages as estimates of reading ability at the time of testing.

FORMATIVE ASSESSMENT

Assessment can be a powerful educational tool for promoting learning, but it depends on the kind of assessment that is used, and the manner of its use. 'There is no evidence that increasing the amount of testing will enhance learning on its own' (Assessment Reform Group, 1999, p. 2). Results from externally imposed summative tests, especially where there are very high stakes attached to these results in countries such as England, can have very negative effects on demotivating students who repeatedly do badly (Wearmouth, 2008). A seminal piece of work (Assessment Reform Group, 1999) demonstrated clearly that student achievement, particularly that of lower achievers, can be raised through formative, rather than summative, assessment in the classroom. They found that improving learning through assessment depends on five, 'deceptively simple', factors: providing effective feedback; actively involving students in their own learning; modifying teaching in response to the results of assessment; recognising the influence of assessment on students' motivation and self-esteem; and enabling students to assess themselves and

understand what they need to do to improve (Assessment Reform Group, 1999, p. 5). The frame of reference for this research includes the view that learners have active agency in learning. They do it for themselves. Assessment that supports learning must therefore involve students so that they have information about how well they are doing to guide subsequent learning in a constructive way that shows them what they need to do, and can do, to make progress. This conclusion clearly reflects the legal requirement to elicit learners' views about their learning and progress.

The shift in emphasis in the purpose of day-to-day assessment in classrooms has resulted in a focus in many places on 'Assessment for Learning' (AfL), that is, ongoing day-to-day formative assessment to collect information on what children do or do not understand and the adaptation of teaching in response to this. Ongoing day-to-day assessments include questioning and discussions with children; observations of children while they are working; analysing children's work; and giving quick feedback. Feedback that connects directly to specific and challenging goals related to students' prior knowledge and experience helps them to focus more productively on new goals and next learning steps (Ministry of Education, 2005, p. 16).

CRITERION-REFERENCING

Criterion-referencing adopts a different frame of reference from norm-referencing. Whereas norm-referenced assessment ranks a learner against all other learners, criterion-referencing compares a learner's performance against identified standards that illustrate key features of learning, achievement, and quality at different stages of children's development (Dunn et al., 2002), and clear descriptors of particular levels of performance within them. Setting out criteria for an assessment not only clarifies what is required of learners but also assists teachers or others in deciding what they need to teach. Criterion-referencing can also improve the quality of feedback offered to learners as the descriptors of levels of performance and the overall criteria should be clear enough to serve as indicators of what learners have to do to succeed (Wearmouth, 2009). In order to enable teachers to engage in conversations that link back to and promote students' learning outcomes, some schools use authentic

examples of students' work that illustrate what these criteria look like. These examples can be used by students and teachers to identify next learning steps. Teachers can compare a student's work sample with the exemplars in order to identify specific strengths and weaknesses, identify individual teaching and learning needs, and prioritise new learning goals.

ASSESSMENT OF PARTICULAR AREAS OF DIFFICULTY

At this point we turn to assessment in particular aspects of what, in England, are included in discussion of the four areas of need: communication difficulties; specific difficulties in learning/dyslexia; issues related to behaviour seen as of concern in some way; and sensory and physical impairments.[3]

ASSESSMENT OF COMMUNICATION DIFFICULTIES

Some students, of course, find it much more difficult to communicate than others. Difficulties in accessing information, communication, sensory impairment, mobility, and relationship-building might make meaningful discussion with some young people problematic. For example, the communication of students with profound and multiple learning disabilities and involving reflexes, actions, sounds, and facial expression needs to be carefully observed and interpreted by the various people who know those learners the best (Porter et al., 2001). Preece (2002), working with autistic children, discusses how inflexible thought processes, lack of personal insight, and dislike of change inhibit some children from participating in meaningful discussion of their ideas. For those young people who cannot express themselves verbally, but for whom pictures and symbols are meaningful and who can understand what is going on, a variety of powerful and useful tools have been developed in an attempt to elicit their views. These include the use of cue cards (Lewis, 2002, p. 114) that can act 'as prompts for ideas about […] people, talk, setting (indoor/outdoor variants), feelings and consequences about the particular event under discussion […] that can convey meaning in a neutral way'. In a similar way, 'Talking Mats' (Cameron & Murphy, 2002) can enable children who experience difficulties in verbal expression to express their views by moving symbols about on mats.

IDENTIFYING DYSLEXIC TENDENCIES

In the area of specific difficulties in learning/dyslexia, it is important to be aware both of ways to identify these difficulties in general terms, and also what is required in terms of assessment for making a case for 'reasonable adjustments' during external examinations in order to comply with the terms of the 2010 Equality Act.

The Rose Review for identifying and teaching dyslexic children (Rose, 2009, p. 30) classifies dyslexia as a learning difficulty associated with 'difficulties in phonological awareness, verbal memory and verbal processing speed' that 'affects the skills involved in accurate and fluent word reading and spelling', but also acknowledges a wider range of information-processing difficulties in various 'aspects of language, motor coordination, mental calculation, concentration and personal organisation'. However, these aspects alone are not markers of dyslexia. A 'good indication' is the extent to which 'the individual responds or has responded to well-founded intervention'. In other words, as the BPS (1999) also implies, if a child experiences difficulties but has not received good teaching, then it cannot be assumed that s/he is dyslexic.

There are both formal and more informal ways of identifying dyslexic tendencies and difficulties in literacy acquisition more generally.

FORMAL DIAGNOSTIC CRITERIA

The International Classification of Diseases, 11th revision that tends to be used in Europe (WHO, 2021),[4] describes a group of 'Neurodevelopmental disorders' under which it classifies a 'developmental learning disorder with impairment in reading' as:

> [...] characterised by significant and persistent difficulties in learning academic skills related to reading, such as word reading accuracy, reading fluency, and reading comprehension. The individual's performance in reading is markedly below what would be expected for chronological age and level of intellectual functioning and results in significant impairment in the individual's academic or occupational functioning [...] not due to a disorder of intellectual development, sensory impairment (vision or hearing), neurological disorder, lack of availability of education, lack of proficiency in the language of academic instruction, or psychosocial adversity.
>
> (6A03.0)

A 'Developmental learning disorder with impairment in written expression' is classified as:

> significant and persistent difficulties in learning academic skills related to writing, such as spelling accuracy, grammar and punctuation accuracy, and organisation and coherence of ideas in writing. The individual's performance in written expression is markedly below what would be expected for chronological age and level of intellectual functioning and results in significant impairment in the individual's academic or occupational functioning. Developmental learning disorder with impairment in written expression is not due to a disorder of intellectual development, sensory impairment (vision or hearing), a neurological or motor disorder, lack of availability of education, lack of proficiency in the language of academic instruction, or psychosocial adversity.
>
> (6A03.1)

In the USA, the DSM-V (p. 66) also lists a number of 'diagnostic criteria', in other words, 'behavioral signs', or the indicators, of a specific 'disorder' or difficulty that must 'have persisted for at least 6 months, despite the provision of interventions that target those difficulties'. As they relate to literacy they include difficulties in 'inaccurate or slow and effortful word reading […] understanding the meaning of what is read […] spelling […] written expression' with 'multiple grammatical or punctuation errors' and so on.

A number of norm-referenced test instruments that include tests of reading accuracy, comprehension, spelling, and handwriting have been developed to identify indicators characteristic of dyslexia. Normed test results are designed to compare a child's score with scores of a whole population. However, in the early years in particular these instruments cannot identify dyslexia with certainty, in part because to be dyslexic implies experiencing difficulties in literacy that are intractable over a long period of time. As a result, they claim to identify tendencies and potential likely to require focused support.

EARLY YEARS PHONICS SCREENING CHECK

The introduction in England in 2012, of the early years phonics screening check at age six is a further early test of literacy skills (Standards and Testing Agency, 2021). This check is intended to

assess children's phonological knowledge through the accuracy of reading of 20 real and 20 non-words. The rationale underpinning this is that children will be forced to work out the sound of the non-words phonologically. One criticism of this test, however, is that competent readers who understand the purpose of reading for meaning will try to read the non-words as if they are real and, hence, may mispronounce them and thus confound the test results.

ACCESS ARRANGEMENTS AND 'REASONABLE ADJUSTMENTS'

Under the terms of the 2010 Equality Act, schools and colleges are required to make 'reasonable adjustments' to enable their learners with disabilities to access the curriculum. In this particular case, difficulties in learning, including dyslexia, may constitute such a disability for which reasonable adjustment should be made at examination time. All secondary schools and colleges now have to have specialist assessors, who may be qualified members of their own staff, or external professionals, to carry out the assessments. The Joint Council for Qualifications (JCQ) (2021b), which is the jointly constituted committee of the awarding bodies offering the majority of the UK's school-level educational qualifications, has laid down a set of criteria for the qualifications required of professionals with the status of 'specialist assessor'. These are available in its document *Adjustments for candidates with disabilities and learning difficulties*.[5] Among these are that an access arrangements assessor must have successfully completed a postgraduate course at or equivalent to Level 7, including at least 100 hours relating to individual specialist assessment.

There is also a legal duty placed on awarding bodies not to discriminate against disabled candidates during examination but to make 'reasonable adjustments' to overcome disadvantages that disabled candidates may experience in comparison with peers.

In order to evaluate whether a young person has a significant level of difficulty in learning or a substantial impairment, it is very common to use a battery of tests to assess young people's literacy levels, numeracy skills, and cognitive ability, using assessments of reading, spelling, mathematical, verbal, and non-verbal skills. Formal assessment made of the barriers to learning experienced by disabled students or those with special educational, or additional learning, or support needs should be valid and reliable so that adjustments made

for individuals can be seen as a fair way to enable access to exam-inations. This means that assessors must understand the rationale underpinning norm-referenced tests, be thoroughly familiar with test procedures, and able to interpret the outcomes.

As the JCQ (2021b) comments, access arrangements should be agreed before a candidate takes an examination. Adjustments will not be approved as 'reasonable' if they are overly costly to the awarding body, require unreasonable timeframes, or undermine the 'security and integrity' of the examination. It would not be reasonable to adjust assessment objectives, for example, within a particular qualifi-cation. From time to time the JCQ offers examples of the most com-mon approaches to reasonable adjustment, for instance 25 per cent or more additional time, use of a computer reader or reader, candidates reading the paper aloud to themselves, or use of a reading pen, use of a scribe or speech recognition technology, use of word processors, and other adjustments that may be considered 'reasonable' in specific circumstances and for particular disabled students.

It must be stated very clearly here that evidence of the disability is not sufficient to make the case for reasonable adjustments for disa-bled students. Also required is evidence of the normal/usual way of working within the candidate's educational institution.

ASSESSMENT OF BEHAVIOUR

Students' behaviour in schools does not occur in a vacuum (Watkins & Wagner, 1995, 2000). Students are members of classrooms that function as aspects of the school system within particular neigh-bourhoods. Students also fulfil roles within their own families and communities. Difficult behaviour that seems to relate to a particu-lar student may be indicative of a range of contextual issues associ-ated with society, the family, ethnic or community group, school, classroom, peer group, or teacher, as well as the individual student (Wearmouth et al., 2005).

There are a number of ways of conceptualising the interactional relationship between the learning environment and the learner. For example, from an eco-systemic perspective, Bronfenbrenner (1979) identifies four levels that influence student outcomes: *microsystem*, the immediate context of the student – school, classroom, home, neighbourhood; *mesosystem*, the links between two microsystems, for

example, home–school relationships; *exosystem*, outside demands and influences in adults' lives that affect students; *macrosystem*, cultural beliefs and patterns or government or institutional policies that affect individuals' behaviour, including societal structure and organisation and prevailing value systems.

Ysseldyke and Christenson (1987, 1993) argue that it is important to assess characteristics of the classroom learning environments in which students are placed because they influence learning. Data are gathered through classroom observation and interviews with both student and teacher on 12 components of teaching: instructional presentation; classroom environment; teacher expectations; cognitive emphasis; motivational strategies; relevant practice; academic engaged time; informed feedback; adaptive instruction; progress evaluation; instructional planning; and student understanding (Ysseldyke & Christenson, 1987, p. 21). They identify a number of instructional factors that can be changed to support more effective learning. They used their analysis of these features in the learning environment to design 'The Instructional Environment Scale' (TIES) as a framework for the systematic collection of data to analyse contextual barriers to students' learning.

RECORDING THE SPECIFICS OF BEHAVIOUR

There are a number of different formats that can be adopted to observe behaviour in classrooms that attempt to be objective and record what is seen rather than making any interpretation of it. The kind of systematic observation methods that are implied here are also characteristic of assessments based on behaviourist understandings. These methods include time sampling and checklists.

Time and interval sampling

Time and interval sampling can be used as an attempt to gain an understanding of a student's learning and behaviour that might be viewed as typical of him/her. If, as often happens, the observer is looking for particular events or behaviours that can be easily categorised, s/he could devise an 'observation schedule'. Systematic observation procedures might involve the construction of an open grid in which instances of specified learner, peer, and adult behaviours can

be recorded as they occur. Then, as Fisher et al. (2004) note, there is a question about the time frames to be used: whether to sample what goes on at one point at the end of predetermined short time periods or to record any of the behaviours that occurred during the preceding time interval. There is the further question of whether an individual student will be 'shadowed' for a longer period of time. The answers to these questions will, to a large extent, be dictated by the kinds of concerns raised in relation to the behaviour of individual students, the kinds of reflection that have already taken place in relation to the evidence already collected, and the extent to which there has been an audit of the learning environment.

In brief,

- time sampling means observing for a set number of minutes. At the end of this the observer records whether, at that particular moment in time, the student is engaging in any of the behaviours that have been defined. The assumption here is that, if a recording is made regularly and systematically, it will represent what the student's general behaviour;
- depending upon the particular purpose, event sampling means that, within a predetermined interval, the teacher records the number of times a behaviour has been observed during that time period.

Both time and interval sampling can be carried out across different lessons and in different contexts.

Using checklists

Sometimes it might be appropriate to use a pre-set list of behaviours as a checklist for classroom teachers to use against which the seriousness of particular kinds of behaviour can be assessed across different contexts. An internet search will quickly identify a whole range of sample behaviour checklists. It is very important, however, to be very clear about the purpose for using such checklists. For example:

- a checklist might have a range of scores next to each behaviour, so that a score can be given against each as a baseline. Teachers' scores of the behaviour of the same student might be compared

to analyse whether the behaviour is different or the same in dif-
ferent contexts;

• alternatively, an individual's behaviour might be scored twice. First, a baseline might be taken. The same student's behaviours can then be scored at a later date to see whether, in the view of those using such a checklist, the perception is that the behaviour has improved or deteriorated.

It has to be said, however, that the reliability of any kind of checklist is open to personal interpretation or the influence of the learning environment, and so on.

Using behaviour checklists

A number of checklists of behaviour are available on the internet. For example:
'CHECKLIST OF POTENTIALLY DISRUPTIVE CLASSROOM BEHAVIOUR', available at https://www.surreycc.gov.uk/__data/assets/pdf_file/0012/10326/SEN3-3-2secChecklist.pdf (accessed 20.12.21).

When conducting observations, it is usually more helpful to make notes at the time, even if systematic time sampling or event recording procedures are being implemented. These notes might be open-ended, where general points of interest are recorded, or can be focused on targeted events as and when they happen. A useful format is to write down what happened and then add a brief comment or interpretation later.

INTERPRETING INDIVIDUAL STUDENTS' BEHAVIOUR

Observing children and young people in the environment of the classroom or school is something that is a part of teachers' everyday practice. It is rare, however, for teachers to have the opportunity to stand back and closely observe the processes, relationships, and behaviours involved in teaching and learning. For the purposes of assessment of individual students' behaviour, particularly when the

intention is to base interventions on behaviourist principles, this process might need to be formalised. If so, it should be systematic and there should be an effective means of recording and interpreting what is seen. Approaches based on behavioural principles require clear assessment of both student performance and the learning environment. Two examples are:

- the problem-solving frame of reference developed by Watkins and Wagner (1995) to identify when the challenges presented by an individual student's behaviour require special consideration;
- 'Multi-Element Planning' (LaVigna & Donnellan, 1986), originally developed in the USA and currently used in parts of the UK as well as in other parts of the world.

Problem-solving interventions to address challenging behaviour

In order to develop effective problem solving, Watkins and Wagner (1995, p. 59) pose a number of questions:

- What specific behaviour is causing concern?
- In what situations does the behaviour occur/**not** occur? (This question is really important in identifying triggers for behaviour.)
- What, specifically, happens before and after the behaviour (that is, what triggers it and what maintains it?)
- What skills does the person demonstrate/not demonstrate? (This can be particularly useful in identifying what may be causing frustration or embarrassment.)
- What does the person's behaviour mean to him/her?
- What does the person think of him/herself and what do others think?
- Who is most affected by this behaviour? (This question is especially salient, given that, by law, we should consider whose education may be adversely affected, or harmed, by the behaviour of an individual.)

FUNCTIONAL ASSESSMENT OF INDIVIDUAL BEHAVIOUR

One of the questions posed by Watkins and Wagner above relates to the gain for the individual (that is, the function that is served) by

behaving in a particular way. Functional analysis can be seen as an experimental approach to behavioural assessment in which variables hypothesised to precede or to maintain the target behaviour are systematically examined in order to isolate their individual effects (Moore, 2004). Reflecting the problem-solving approach above, functional assessment therefore aims to discover the antecedents, setting events, and consequences that cause or maintain challenging behaviours. The analysis can then be used as a means for identifying the functional relationships between particular behaviours and specific antecedent or consequent events.

Pitchford (2004) describes the four main components in LaVigna and Donnellan's (1986) multi-element planning:

- Strategies that 'examine whether there are mismatches between the child and his/her environment that require a change in the environment not a change in the child' (Pitchford, 2004, p. 312). Change strategies should be considered in relation to interpersonal, physical, and instructional contexts in which the behaviour occurs.
- Positive programming, which involves 'teaching children skills that will have a positive impact on their lives working on the assumption that learning is empowering, gives dignity to the individual, helps them get their needs met and helps them cope with an imperfect world' (Pitchford, 2004, p. 313). Three areas of skill development are addressed: general, functionally equivalent, and coping:
  - o general: 'academic or life skills that the child has not mastered that are having a negative impact on his/her quality of life' (Pitchford, 2004, p. 313);
  - o functionally equivalent: that is, socially acceptable skills or behaviour that will serve the same purpose for the student as that which is seen as unacceptable. 'No matter how strange, behaviour always has a purpose or a function (LaVigna & Donnellan, 1986). If we understand that purpose or function we are more likely to be able to channel it in a constructive way' (Pitchford, 2004, p. 314). Pitchford offers the following examples: 'problem behaviours and their functions together with the functionally equivalent skills that could be included in a multi-element plan to help the child achieve the same end';

> o coping skills designed to help students 'manage and tolerate the frustrations and difficulties in their lives'.
- Preventive strategies, comprising the antecedent control strategy and the use of reward strategies (LaVigna & Donnellan, op cit.):
  - o antecedent control strategies include removing those events that act as a direct trigger to problem behaviours (Glynn, 2004);
  - o reward strategies only work well when they are used in the context of the types of positive programming and ecological strategies described earlier. Rewards can be artificial. The teacher will not always be there to reward the child and as our aim is to teach the child to be independent, rewards may only be a short-term expedient. From a behavioural perspective, basically there are three ways of rewarding children (LaVigna and Donnellan, op cit.):
    - i. Rewarding children for being 'good';
    - ii. Rewarding children for not being 'naughty';
    - iii. Rewarding children for being 'naughty' less often than they were before. However, as Pitchford comments, this technique may be inappropriate for behaviour seen as dangerous.
- Reactive strategies, which

  > o are included in the plan in order to safeguard the child, his or her peers and staff when things go wrong. ... In particular we should know what safe non-punitive techniques will be used if the problem behaviour occurs and what support will be given to the child. Just as important is consideration of the practical and emotional help or support that should be given to the member of staff.

  (Pitchford, 2004, p. 321)

Three practical steps need to be taken before drawing up the plan:

- identify the frequency, seriousness, and the contexts in which the behavioural problems occur;
- prioritise the problems; and
- collect baseline data against which progress can be assessed. All data collected should be used to support the setting of targets for the MEP, reviewing progress and establishing appropriate criteria for rewards.

There is a deliberate attempt here to teach young people skills that will have a positive impact on their lives: academic or life skills that the child has not mastered; functionally equivalent skills, that is, socially acceptable skills or behaviour that will serve the same pur-pose for the student as that which is seen as unacceptable; coping skills designed to help students manage the difficulties in their lives; and preventive strategies. These include removing those events that act as a direct trigger to problem behaviours (Glynn, 2004).

One of the issues to be considered in multi-element planning is that of ethics. Where teachers deliberately set out to change students' behaviour then there is always a question of how that teacher's power is exercised, what behaviour is seen as preferable and why, and in whose interest it is that the behaviour should be changed in this way.

Pitchford (2004), drawing on LaVigna and Donnellan's work, poses the following questions before any assessment or intervention is devised:

> What gives us the right to manipulate or change someone's behaviour?
> How certain are we that the problem behaviour is not a perfectly rea-sonable response to unreasonable circumstances?
> If we do intervene, how ethically sound are our techniques and what is their record of effectiveness (Cooper et al., 1987; Grant & Evans, 1994)?
> (Pitchford, 2004, p. 311)

BIOLOGICAL AND MEDICAL ASSESSMENTS

Biological and medical explanations of behaviour theorise problems as emanating from within the individuals themselves. Difficult or challenging behaviour, from a medical perspective, is the result of an underlying condition, disease, or dysfunction that an individual has and which requires treatment.

Two biologically and medically based understandings of behaviour are attention deficit/hyperactivity disorder (AD/HD) and autism.

Indicators of attention deficit/hyperactivity disorder

As Norwich et al. (2002) note, there are differences in the reported incidence of AD/HD internationally. In particular regions of the USA, up to nine per cent of children were identified as having AD/HD,

while only 0.007 per cent were identified in the UK. In Britain and Europe, the tradition has been to use the diagnostic systems of the International Classification of Diseases (ICD), v 11, published by the World Health Organization (WHO) (2021). There is a strict require–ment for pervasiveness and persistence.

> Attention deficit-hyperactivity disorder is characterised by a persistent pattern (at least six months) of inattention and/or hyperactivity-impul-sivity that has a direct negative impact on academic, occupational, or social functioning. There is evidence of significant inattention and/or hyperactivity-impulsivity symptoms prior to age 12 [...]though some in-dividuals may first come to clinical attention later. The degree of inat-tention and hyperactivity-impulsivity is outside the limits of normal var-iation expected for age and level of intellectual functioning. Inattention refers to significant difficulty in sustaining attention to tasks that do not provide a high level of stimulation or frequent rewards, distractability, and problems with organisation. Hyperactivity refers to excessive motor activity and difficulties with remaining still, most evident in structured situations that require behavioural self-control. Impulsivity is a tenden-cy to act in response to immediate stimuli, without deliberation or con-sideration of the risks and consequences.

This means that behaviour that is seen largely in one context only does not constitute grounds for a diagnosis. Children prematurely break off from tasks and leave activities unfinished. They may run and jump around, be overly talkative and noisy.

> The standard for judgement should be that the activity is excessive in the context of what is expected in the situation and by comparison with other children of the same age. Children may behave recklessly, flout social rules 'as shown by intruding on or interrupting others' activities, prema-turely answering questions before they have been completed, or difficulty in waiting turns.
>
> (p. 207)

In summary, the directly observed abnormalities of attention or activity must be 'excessive' for the child's age and developmental level. it is likely that these difficulties began before the age of six years.

While diagnostic criteria are an expedient way to classify adult perception of students' behaviour, behaviour assessment that is intended to lead to intervention in the context of a student's education needs to take account of a comprehensive range of factors that influence the student's behaviour in the context of school. Defining AD/HD as a mental disorder is problematic. As the British Psychological Society commented over 20 years ago: 'The pattern of AD/HD-type behaviour might be maladaptive to environmental requirements, but it is not necessarily the result of psychological dysfunction' (1996, p. 23).

Assessment of autism

Autism is also a medical explanation of individual behaviour; 80 per cent of children with autism score below 70 on norm-referenced intelligence tests (Roth, 2002) and increasingly severe general learning difficulties are correlated with an increasing occurrence of autism (Jordan, 1999). As Sheehy (2004), notes, therefore, it can be difficult to separate out the effects of autism from those of profound difficulties in learning.

'There are no biological markers in the identification of' autism, despite advances in neuroscience' (Klin et al., 2000, p. 163). Hence a profile of symptoms and characteristics of autistic behaviour with agreed diagnostic criteria is used to identify autism in young people. The Diagnostic and Statistical Manual (DSM-V), of the American Psychiatric Association (APA, 2013) form the basis of the Autism Diagnostic Observation Schedule (ADOS) that is used by some LAs in the UK as a diagnostic tool. Autism in the DSM-V (p. 31) is described as

> characterized by persistent deficits in social communication and social interaction across multiple contexts, including deficits in social reciprocity, nonverbal communicative behaviors used for social interaction, and skills in developing, maintaining, and understanding relationships. In addition to the social communication deficits, the diagnosis of autism spectrum disorder requires the presence of restricted, repetitive patterns of behavior, interests, or activities.

In the UK, assessments of autism spectrum disorders may instead be based on the *International Classification of Diseases* (ICD), published

by the World Health Organization. In the ICD–11 (WHO, 2021, 6A02), autism is described as a disorder that is:

> characterised by persistent deficits in the ability to initiate and to sustain reciprocal social interaction and social communication, and by a range of restricted, repetitive, and inflexible patterns of behaviour, interests or activities that are clearly atypical or excessive for the individual's age and sociocultural context. [...]Deficits are sufficiently severe to cause impairment in personal, family, social, educational, occupational or other important areas of functioning and are usually a pervasive feature of the individual's functioning observable in all settings, although they may vary according to social, educational, or other context. Individuals along the spectrum exhibit a full range of intellectual functioning and language abilities.[6]

Guidance for professionals from NICE

In the UK, the National Institute for Health and Care Excellence (NICE) (2017) has very usefully provided three 'Signs and symptoms' tables for use with pre-school, primary, and secondary-aged children in Appendix 3 of its publication *Autism in under 19s: recognition, referral and diagnosis*. These are available at www.nice.org.uk/guidance/cg128/resources (accessed 20.12.21). These tables are not intended to be used on their own, but to support professionals to recognise a pattern of impairments in reciprocal social and communication skills, and unusual restricted and repetitive behaviour. An associated publication produced by NICE (2011) 'Autism: recognition referral and diagnosis of children and young people on the autism spectrum. Clinical case scenarios for professionals working with children and young people' have been developed 'to improve and assess users' knowledge of the recognition, referral and diagnosis of autism in children and young people' (p. 4). It is available at www.nice.org.uk/guidance/cg128/resources/clinical-case-scenarios-183180493 (accessed 20.12.21).

Coordination between health agencies and other key services such as education, social care, and the voluntary

sector is important to identify and address difficulties commonly associated with autism. NICE (2011) advises that a local autism multidisciplinary group (the autism team) should include, in its core membership, a paediatrician and/or child and adolescent psychiatrist, a speech and language therapist, and a clinical and/or educational psychologist. Multi-agency staff should also work in partnership with the child or young person with autism and their family or carers. Once a concern about possible autistic tendencies has been raised, a member of the core autism team should advise on whether a referral should be made for a formal assessment.

ASSESSMENT OF SOCIAL AND EMOTIONAL HEALTH AND WELL-BEING

A number of instruments can be accessed through the internet to evaluate perceptions of learners' well–being.

Assessment instruments

An example of a self-assessment instrument for young people is the survey developed by the Child Outcomes Research Consortium (CORC) that is available at https://www.corc.uk.net/media/1739/survey-screen-shots-v2.pdf (accessed 20.12.21). This was designed to assess learners' mental health and well-being, including emotional and behavioural difficulties, emotional strengths, and skills, for example self-esteem, problem solving, goal setting and participation in home and school, and support networks in school, at home and in the wider community, from their own point of view. We should stress that this survey instrument is copyrighted and should not be used without permission of CORC.

Updated and downloadable versions of Goodman (1997) and Goodman et al.'s (1998, 2010) 'Strengths and difficulties

questionnaire', described as 'a brief behavioural screening questionnaire about 3-16 year olds' are available at https://www.sdqinfo.org/py/sdqinfo/b3.py?language=Englishqz (UK) (accessed 20.12.21). There are versions for families and teachers of young people from age 3 to 16, and for adolescents. Each version includes up to three of the following: 'emotional symptoms', 'conduct problems', 'hyperactivity/inattention', 'peer relationship problems' and 'prosocial behaviour'. When using an instrument such as this it is important to consider what might be done with the results, in particular because young people and their families have a legal entitlement to having their views considered in any decision-making about their education.

ASSESSMENT OF VISUAL IMPAIRMENT

We discussed checks of a child's vision soon after birth in the section above on assessment in the early years. Below we consider later assessments.

Visual impairment (VI), sometimes termed 'vision impairment' (RNIB),[7] is a general term that indicates a continuum of sight loss (Mason, 1997). Total blindness is extremely rare.

For young children, a test of vision may be carried out using objects, pictures, or symbols. When the child can recognise or match letters, his/her vision is tested using charts with rows of letters and numbers of decreasing sizes. These charts are called Snellen or LogMAR charts. The most well-known chart used to test sharpness of sight is the Snellen eye chart, originally devised by a Dutch Ophthalmologist, Dr Hermann Snellen, in 1862. This has a series of letters or letters and numbers, with the largest at the top. As the child reads down the chart, the letters gradually become smaller. Other versions can be used for children who cannot read the alphabet.

In the Snellen fraction 20/20, the top number represents the test distance, 20 feet. The lower number represents the distance at which the average eye can see the letters on a particular line of the eye chart. So, 20/20 means that the eye being tested can read a certain

size letter when it is 20 feet away. If a person sees 20/40, at 20 feet from the chart s/he can read letters that a person with 20/20 vision could read from 40 feet away. Originally, Snellen worked in feet but later (in 1875) he changed from using feet to metres (from 20/20 to 6/6 respectively). Currently, the 20-foot distance continues to be used in the United States, but six metres is used in Britain.

More recently, the LogMAR chart has been introduced to test eyesight. Each line of the LogMAR chart consists of the same number of test letters (effectively standardising the test across letter size); letter size from line to line as well as the spacing between lines varies logarithmically. It is described by the Royal College of Ophthalmologists (2015) as 'more accurate than other acuity charts' and, therefore, now quite commonly used in eye clinics. Images of both Snellen and LogMAR charts are available on the internet, for example at: https://www.google.com/search?q=snellen+and+logmar+chart&rlz=1C1GCEB_enGB906GB906&oq=snelln+and+logmar&aqs=chrome.1.69i57j0i13l2j0i22i30l7.10491j0j15&sourceid=chrome&ie=UTF-8 (accessed 20.12.21).

Measures of visual acuity such as Snellen and LogMAR relate to the recognition of letters or symbols with high contrast, but tell us nothing about the quality of vision, for example, seeing larger objects and objects with poor contrast or whether vision is more or less efficient when using both eyes together (Strouse Watt, 2003).

A clinical assessment of vision usually focuses on four aspects: distance, near, field, and colour vision (Mason, 2001). However, children with the same eye condition may have very different strengths and needs from each other, with different interests, background experiences, and so on, as well as differing degrees of useful vision (Miller & Ockleford, 2005). A whole range of information is therefore needed to ensure that support for young children is appropriate (Miller & Ockleford, 2005). This includes the views of the child and the parents/family, and medical and school records as well as the clinical assessment of vision.

Many people who are classed as blind have some 'functional' vision. Where a distinction is necessary for any reason, the term blind is used to refer to learners who rely on tactile methods in their learning, for example, Braille or Tactile diagrams, and the term low vision is used with reference to children and young people who are taught through methods that rely on sight (Mason et al., 1997). It is

important for teachers and parents to work with the child to teach her/him how to make best use of this functional vision (Davis, 2003).

AUDITORY IMPAIRMENT

As noted in Chapter 8, sound energy, measured in decibels, travels in a wave of pressure through a medium such as the air around us or a liquid, for example, water. In humans, the hearing of sound involves sound waves passing along the ear canal, the reception of such waves through the ear, and their perception by the brain (see Figure 8.1). Ears that are functioning properly detect changes in sound pressure. In schools or colleges, for educational purposes, young people with hearing impairments will probably require hearing aids, adaptations to their environment, and/or particular teaching strategies in order to access the curriculum.

ASSESSMENT OF HEARING

A decibel (dB) is a measure of sound pressure level. Normal voice measures 60 dB at a distance of one metre, a raised voice 70 dB at one metre, and shouting 80 dB at one metre. The severity of a hearing impairment is measured in decibels of hearing loss and is ranked according to the additional intensity above a nominal threshold that a sound must be before being detected by an individual. There is a variety of tests that can be used to find out how much hearing a child has. We discussed the hearing tests used to assess babies' hearing in the section above on the early years. As we commented, the tests used will depend on the child's age and stage of development.

For children of school age, hearing is usually measured with behavioural tests using pure tones. The sounds come through headphones and each time a child hears a sound they respond by moving an object, pressing a button, or saying 'yes'.

ASSESSMENT OF PHYSICAL IMPAIRMENTS

As noted above, assessment of possible physical impairments is carried out at the Newborn and Infant Physical Examination (NIPE) within three days of a child's birth. If difficulties are identified then or

later, a referral is likely to be made to a health professional and a plan put in place to support the child and the family. Plans should clearly take account of the outcomes of the assessment of difficulties, specify ways to address these, and include clear targets in which the child and family should be involved. Advice from health professionals may well be incorporated into the plans. Hampshire County Council (https://www.hants.gov.uk/socialcareandhealth/childrenand families/specialneeds/specialistadvisory/physical–disability/pd– assessments − 20.12.21) offers an outline for families to be aware of how an assessment during the school years might look:

> Assessments are informal. Your child will be assessed by one of our teachers called a Specialist Teacher Adviser for Physical Disabilities or STA PD for short. They will observe your child playing or learning to determine their ability to function in the educational setting. They look specifically at:
>
> - mobility;
> - gross and fine motor skills;
> - personal care; and
> - self-help skills.

ELICITING LEARNERS' VIEWS

Both the international Convention on the Rights of the Child (UN, 2009) to which the UK is a signatory, and legislation across the UK require young people's views to be considered when assessing needs and planning learning or behaviour interventions. Young people have a right to be heard. However, it is also especially imperative to reflect on why it is important to listen to what they have to say in terms of the way we understand the learning process. We can understand students' learning in a number of ways, as discussed in Chapter 1. In the section entitled 'Constructivist approaches' we make the point that if we assume that students are active agents in their own learning, we have to try to understand how they feel about difficulties in learning, behaviour, motor skills, or in any other area in which they experience difficulties and what they know will support them most effectively. From a learning perspective, it is important

for adults to understand how children make sense of their own cir–
cumstances and what impression is conveyed to students of others'
views of them, in other words, how young people understand their
worlds, their experiences, tasks in classrooms, and so on. This is not
simply a question of human rights, that children have a right to be
heard, important though this is. Young people will not engage in
classroom activities if they see no value in it for themselves. Besides
this, it is difficult to see how teachers can support learning through
the zone of proximal development if they do not pay close attention
to what young people say, how they react to things, and what they
do. Eliciting students' views depends on very finely tuned listening
skills as well as suspension of judgemental responses on the part of
professionals. It is important to recognise that 'children will make
decisions about people they can talk to and trust, and those they
cannot' (Gersch, 1995, p. 48).

In the section above on assessment of communication difficulties
we have outlined ways to enable children who experience difficulties
in verbal expression to make their views known. Below we suggest
a means of supporting learners to express what they feel through an
interview technique called 'Talking Stones'.

'Talking stones'

Wearmouth (2004b) describes a projective interview tech-
nique, 'talking stones', which is an assessment strategy to
help students represent problematic relationships and situ-
ations as they see them.

'Taking stones' was originally based on personal construct
psychology and developed from Crosby's therapeutic work
with adults (unpublished report, 1993, Centre for Personal
Construct Education). This technique is designed to address
the challenge of engaging with a student's perspective
meaningfully in order to work through what are often dif-
ficult situations in schools, and matching provision to real
needs. The assumption underpinning this technique is that,
for the individual learner, everything is perceived and medi-
ated by what is salient, socially and personally. This view of

behaviour implies that it is possible for a person acting in support to enter the student's reality and hold dialogue.

During an individual interview, a student is given a pile of stones of varying shapes, sizes, colours, and textures and encouraged to explore thoughts and feelings about school and him/herself in relation to it by projection on to them. The individual selects one stone to represent him/herself in school and discusses his/her choice. Subsequently, s/he selects more stones to represent significant others in the context about which there is current concern, describes why they have been chosen, and then places them on a rectangular white cloth or large sheet of paper. The edges of this set a boundary to the positioning of the stones and their distance from each other. Stones, their attributes, and their positions in relation to each other can be understood as a student's representation of individually constructed meanings.

One way in which a procedure such as 'talking stones' can contribute to the process of assessment in schools is in the manner in which it can open up problematic relationships between, typically, teenagers and staff members, and facilitate dialogue or conversation. The student is not seen as 'mad' and therefore unintelligible and threatening, but engaging with life in an alternative mode.

'Talking stones' is a powerful procedure. The ethics surrounding its use should therefore be taken into careful consideration. It should be used only where there is positive benefit to the student. Its use is ethically questionable unless there is a clear benefit for the student. Teachers using 'talking stones' should be aware of ethical principles associated with techniques of a counselling nature, for example, those of 'non-maleficence' and 'beneficence'. As McLeod (1998, pp. 272–73) notes, 'non-maleficence' refers to the principle of not doing any harm, and 'beneficence' to promoting human welfare. Asking personal questions may be construed as prying into a student's privacy. It raises a question about what teachers and schools should do with sensitive information of this sort which, although very important

to understanding individuals, may be used by some to belittle or stereotype students.

Raising self-esteem is frequently set as a target for students seen as having a low self-image. However, attempting to raise self-esteem may have little point if teachers are not aware of major factors driving students' behaviour. It also raises the question of who should decide whether the risks of using a technique such as this outweigh the benefits.

There are many instances in schools where students disclose very sensitive information about themselves to teachers. Before engaging in any activity where this is likely to happen, including using 'talking stones', teachers need to familiarise themselves with any guidelines that may exist in their own schools about handling information that may emerge from student self-disclosure, for example, information relating to sexual abuse.

The assessment of students' perceptions of, and feelings about, their own behaviour depends on very finely tuned listening skills as well as suspension of judgemental responses on the part of professionals.

'Talking stones' is a technique not to be used lightly. Once a student has begun to disclose personal information, it may be difficult for an inexperienced teacher-interviewer to bring about closure in a way that leaves the student in a frame of mind sufficiently comfortable to return to regular classroom activities.

ENGAGING WITH PARENTS' OR CARERS' PERSPECTIVES

In a number of different countries across the world, there is a formal acceptance that parents and carers have the right to know about decisions taken in schools in relation to their children, and that they themselves, potentially, are an important source of additional support in addressing difficulties in learning and/or behaviour experienced by young people. The right of parents and/or carers to be consulted at every stage of decision-making about their children is

enshrined in law across the UK, for example in the Children and Families Act, 2014 in England, and the Additional Support for Learning (Scotland) Acts, 2004 and 2009. A number of guides for parents and carers have also been issued to support families to understand their entitlements, for example, *The Parents' Guide to Additional Support for Learning* (Enquire, 2014), which is funded by the Scottish Government, and the *Special Educational Needs and Disability (SEND): A Guide for Parents and Carers* (DfE, 2014b), published in England.

However, entitlement in law is not always synonymous with experience in practice. Schools have a great deal of power to affect the lives of children and their families and carers through the types of consultation arrangements, assessments, and provision they make. Embedded within the particular discourses, approaches, and strategies of schools are a variety of preconceptions about the ability and right of parents, families, and/or communities, from a diversity of backgrounds and cultures, to support the learning and development of their children.

The (2009) Lamb Enquiry into special educational and parental confidence in the system concluded that 'Failure to comply with statutory obligations speaks of an underlying culture where parents and carers of children with SEN can too readily be seen as the problem and as a result parents lose confidence in schools and professionals'. Lamb went on to say: 'As the system stands it often creates 'warrior parents' at odds with the school and feeling they have to fight for what should be their children's by right; conflict in place of trust' (Lamb, 2009, 1.1).

The recommendations in this report suggested a new framework for the provision of SEN and disability information that 'puts the relationship between parent and school back at the heart of the process' and 'trades adherence to a "laundry list" of rules for clear principles to guide that relationship' (Lamb, 2009, 1.4). Clearly, these recommendations informed the terms of the Children and Families Act (2014) in England.

PLANNING TO MEET LEARNERS' SPECIAL OR ADDITIONAL EDUCATIONAL NEEDS AND DISABILITIES

Planning a curriculum to meet particular special learning needs of individual students should take place within the context of the same

decision-making processes that relate to teaching and learning for all students in a school, otherwise there is the danger that individual plans will lack coherence in relation to the whole school system. In addition, planning to address individuals' learning needs effectively means setting out to working from strengths and interests with due account taken of any formal and informal individual assessment of student learning that has taken place. This should address any statutory requirements.

Planning will also need to be informed by the individual priorities for students. Normally it would be appropriate for them to work on objectives that are similar and related to the whole class topic. However, at other times, teachers will also have to consider whether the students have other priority needs that are central to their learning, for example, a need to concentrate on some key skills such as communication, problem solving, working with others, managing their own emotions, and so on. These needs may be detailed in the student's individual plan. They can often be met within whole-class learning; for example, relating physiotherapy objectives to the PE curriculum, communication to literacy lessons, problem solving to mathematics, history, or geography.

Some students may have additional therapeutic or other needs that cannot easily be met through class activities. For these students, alternative objectives may be needed to meet specific needs for identified periods of time provided they are in the context of ensuring that, over time, all students receive a broad and balanced curriculum.

MAKING EFFECTIVE USE OF INDIVIDUAL PLANS

The term 'Individual Education Plan' (IEP) follows the American model outlined in the 1975 special education law in the USA (Public Law 94-142) where a plan for a child perceived as having difficulties had to be drawn up in order to attract federal funds (Wearmouth, 2000). In the countries across the UK and also in a number of other countries, for example, New Zealand, the individual education and/or learning plan, in some form or another, has become a major tool for planning programmes of study for individual students (Scottish Government, 2017; DfE, 2015). The Code in Scotland (2017, p. 50),

for example, defines an 'Individualised Educational Programme' as describing in detail:

> the nature of a child's or young person's additional support needs, the ways in which these are to be met, the learning outcomes to be achieved, and specifies what additional support is required, including that required from agencies from outwith education.

Although the details and title of the document may vary slightly from one country to another, overall, these records are expected to contain information about the nature of the child/young person's learning difficulties, the special or additional educational provision to be made and strategies to be used, specific programmes, activities, materials, and/or equipment, targets to be achieved in a specified time, monitoring and assessment arrangements, and review arrangements and date. We might also add that effective planning, as exemplified in the *Code of Practice* (DfE, 2015), is that which:

- focuses on the child or young person as an individual, not the SEN label;
- uses clear ordinary language and images, not professional jargon, so is easy for children, young people, and their parents to understand;
- highlights the young person's strengths;
- enables the young person, and his/her family, to say what they have done, what they are interested in, and what outcomes they are seeking in the future;
- tailors support to the needs of the individual;
- organises assessments to minimise demands on families;
- brings together professionals to agree an overall approach.

Complying with the procedures relating to individual plans can be very time-intensive. It is important therefore for schools to develop ways of working that keep this pressure to a minimum whilst developing systems for ensuring that the learning programme is carried out, monitored, and evaluated. These days in England some SENCos have dispensed with individual plans for some children and use group

plans instead. Some may rely on 'provision maps', which can either be documents that identify provision for individual children with the targets, progress, and review dates, or whole-school provision with analyses of student outcomes and value for money, or both.

'Pupil passports'

Ever since the system for identifying, assessing, and providing for students with special educational, or additional learning or support needs was introduced into mainstream schools/colleges to promote the inclusion of students who experience difficulties of various sorts, there has been a question of how to manage and disseminate information relating to individual students. Mainstream class teachers are expected to take responsibility for the progress of all the young people in their classrooms. In order to ensure that all staff are aware of students/individual needs, some schools have adopted 'pupil/student passports', which the young person carries with him/her to each lesson. These comprise a one-page summary document that is often compiled with the student and written in the first person. There are no formal requirements or set format, but as a general guide, they contain the learner's name and photograph together with the following information, quite often written in the first person:

> 'I would like you to know that ...'
>> 'For me, this means that ...'
>> 'I find it difficult to ...'
>> 'It would really help me if you would ...'
>> 'I am happy to help myself by ...' (self-help strategies agreed with the learner)
>> 'I already have the following support to help me:' e.g. interventions in place
>> 'Please avoid: ...'

TARGET SETTING

Individual plans, profiles, or records can only be as effective as the rigour of the thinking underlying their design. Targets can provide a focus for the combined efforts of all those concerned to support a learner's progress and highlight the need to link planning and

provision. However, there are specific areas of the curriculum where it may be problematic to conceptualise measurable targets, for example, those involving behaviour, emotions, and creativity.

Setting measurable targets is closely associated with behavioural approaches. A school and a national curriculum can be seen as a ladder of progression that children are expected to climb, with specific assessment learning goals at each rung. An inherent difficulty in this view, however, is that not all children learn the same way, so setting targets that follow in a similar sequence for all students is not necessarily appropriate (Dockrell & McShane, 1993). There is also the possibility that too much reliance on task components can lead to rigid and prescriptive teaching, which takes no account of specific strategies that the learner brings to any particular task (ibid.).

STATUTORY ASSESSMENT OF EDUCATIONAL NEEDS AND DISABILITY ACROSS THE UK

If a child or young person fails to make 'adequate progress', despite the individual planning and implementation of the plans that has taken place, then additional or different action should be taken. What constitutes inadequate progress might be defined in a number of ways. It might, for instance, be defined, as in the *Code of Practice* in England, as that which:

> is significantly slower than that of their peers starting from the same baseline;
>> fails to match or better the child's previous rate of progress;
>> fails to close the attainment gap between the child and their peers;
>> widens the attainment gap.

<div align="right">(DfE/DoH, 2015, §6.17)</div>

Of the young people that settings, schools, and colleges identify as experiencing particular difficulties, those who have longer term or more severe disabilities or needs may be the subject of statutory assessment.

EDUCATION, HEALTH AND CARE PLANS IN ENGLAND

In England, schools, and colleges should identify and support young people with SEN and/or a disability either from within their own

resources under what is now called 'SEN Support' or, where the degree of need is such that it requires a higher level of resourcing than is available from these resources, through an Education, Health and Care (EHC) Plan. Local authorities (LAs), not schools, colleges, or parents, have a legal duty to carry out an EHC needs assessment, issue an EHC plan, and ensure the special educational provision that has been specified in this plan. An LA has a clear duty to assess a child or young person's education, health, and care needs where s/he may have SEN and may need special educational provision to be made at a level or of a kind which requires an EHC plan. An EHC needs assessment can only be requested if the young person has or may have educational needs, NOT where there are only health and/or care needs, no matter how severe.

The statutory assessment process and development and review of EHC plans requires cooperation between schools and LAs. Where a child or young person has not made expected progress despite a school having taken appropriate action to identify, assess, and meet the SEN, an EHC needs assessment might be requested. During the course of an assessment, the LA must gather advice from relevant professionals about the young person's education, health, and care needs and special educational, health, and care provision that may be required to achieve desired outcomes. The child's parent or the young person has the right to request a particular school to be named in their EHC plan. The LA must consult the governing body of that school about admitting the child or young person and to name the school in the EHC plan, unless it would be unsuitable for the age, ability, aptitude, or SEN of the child or young person, or the attendance of the child or young person would be incompatible with efficient education of peers or efficient use of resources. The school is involved in the development or review of the EHC plan to determine what can be provided from within the school's own resources and what will require additional external expertise or further funding from the LA that must then make sure the support identified in the plan is provided.

Some of the provision specified may be procured by the child's parent or the young person using a personal budget. Where a direct payment is to be used to deliver provision on the school premises, the LA must seek the written agreement of the school for this arrangement. Local authorities have a duty to review EHC plans at a minimum every 12 months and can require schools or other educational

institutions to convene and hold the review meeting on their behalf. In most cases, reviews are held at, and led by, the young person's educational institution. The child's parents or the young person, a representative of the school or other institution, a local authority SEN officer, a health service representative, and a local authority social care representative, must be invited and given at least two weeks' notice of the date of the meeting. Other individuals relevant to the review should also be invited.

The school should seek information about the child or young person prior to the meeting from all participants and send any information gathered to all those invited at least two weeks before the meeting. Subsequently, and within two weeks of the meeting, the school should send a report to everyone invited with recommendations on any amendments required to the EHC plan and should refer to any difference between the school or other institution's recommendations and those of others.

The test that local authorities must apply in coming to a decision about an EHC plan is set out in the Children and Families Act 2014 (§37(1)). Based on the evidence gathered:

> Where, in the light of an EHC needs assessment, it is necessary for special educational provision to be made for a child or young person in accordance with an EHC plan –
>
> a. the local authority **must** secure that an EHC plan is prepared for the child or young person, and
> b. once an EHC plan has been prepared, it must maintain the plan.

There are specific requirements for the contents of an EHC plan. An EHC plan specifies:

- the child's or young person's special educational needs;
- the outcomes sought for him or her;
- the special educational provision required by him or her;
- any health care provision reasonably required by the learning difficulties and disabilities that result in him or her having special educational needs; and
- social care provision that is being made for the child/young person under the Chronically Sick and Disabled Persons Act 1970

and any social care provision reasonably required by the learning difficulties and disabilities that result in the child or young person having special educational needs, to the extent that the provision is not already specified in the plan.

If an EHC plan does not contain all of the sections that are needed it will not be legally compliant.

It can be very useful to look carefully at diagrammatic representations of a complex process such as that involved in the development and implementation of an EHC plan. The representation of the timeline for the EHC process is published in the *Code of Practice* (DfE, 2015, p. 154), available at www.gov.uk/government/uploads/system/uploads/attachment_data/file/398815/SEND_Code_of_Practice_January_2015.pdf (accessed 20.12.21).

INDIVIDUAL DEVELOPMENT PLANS IN WALES

In Wales, such assessment may result in the issuing of an Individual Development Plan (IDP). Chapter 23 of *The additional learning needs code for Wales* (NAW, 2021) is very specific in the requirements of the plan. This chapter:

> [...] is set out in two parts. Part A provides information, guidance and requirements in relation to preparing and maintaining an IDP. Part B [...] provides further detail on certain matters relating to the preparing and maintaining of an IDP, specifically the duty to favour mainstream maintained schools, placements at independent schools, independent special post-16 institutions (ISPIs) and other placements and considerations.
>
> (§23.2)

This Code is available at https://gov.wales/additional-learning-needs-code (accessed 20.12.21).

STATEMENTING IN NORTHERN IRELAND

At the time of writing, the most recent SEN Code of Practice (DENI, 2021, available at https://www.education-ni.gov.uk/consultations/consultation-draft-sen-code-practice) was still in draft form.

Section Four of the draft Code sets out details of the proposed statutory assessment process:

> The EA [Education Authority] is required to consider whether it is necessary for it to make an assessment under Article 15 of the 1996 Order. This consideration may, or may not, result in a decision to carry out an assessment. The EA's focus at this point is on what action the school, or the school and the EA, has taken to address the child's learning difficulties.
>
> (§4.6)

In Section Five the draft Code states:

> Where, the outcome of a statutory assessment is a decision that it is necessary for the EA to determine the special educational provision to meet a child's SEN, the EA is required to make and maintain a formal Statement of those needs.
>
> (§5.6)

It goes on to outline the required seven parts of a Statement:

> The content of the Statement is required to take into consideration any representations, evidence and advice available. It should set out details of the EA's assessment of the child's SEN and the type of special educational provision required to meet those needs. The nature and extent of the provision should be specified in the Statement. Where diagnostic or technical terms are necessary or helpful, their meaning should be set out in a way which the relevant party and other non-professionals will readily understand.
>
> (§5.10)

COORDINATED SUPPORT PLANS (SCOTLAND)

In Scotland, provision for children and young people with additional support needs associated with complex or multiple factors that require a high degree of support from education authorities and other agencies is organised through the provision of a statutory document called a 'co-ordinated support plan'. The Code in Scotland (Chapter 5) lists the criteria required for a plan: 'an EA is responsible for the

school education of the child or young person' (p. 67); the child or young person must have 'additional support needs arising from complex and/or multiple factors' (p. 69); additional support needs should be 'likely to continue for more than a year' (p. 71); and 'do those needs require significant additional support to be provided?' (p. 74).

During the preparation of the plan, the views of the following should be sought and recorded: the parents, the young person, representatives of relevant agencies, and any others who provide support. If the decision of the local authority is to issue a plan, there are statutory requirements[8] related to its contents. Plans should contain (pp. 82–83):

- the education authority's conclusions as to the factor or factors from which the additional support needs of the child or young person arise;
- the educational objectives intended to be achieved taking account of those factors;
- the additional support required to achieve these objectives; and
- details of those who will provide this support.

The plan must also contain:

- the name of the school the child or young person is to attend;
- the details of the person who will coordinate the additional support identified in the plan, or the details of any person nominated by the education authority to carry out the co-ordinator function, if not an education authority official;
- the details of a contact person within the local authority from whom the eligible child, parent or young person can obtain advice and further information, in the case of a plan prepared following a request […].
- parents' and child's/young person's comments;
- a review timetable.

It should include a focus on positive aspects of the young person's life and include a review timetable.

Parents and young people have the right to refer particular matters, for example, statutory parts of the plan and prescribed decisions, to the Additional Support Needs Tribunals for Scotland.

SUMMARY

Assessment should be viewed as a tool that supports learning and not simply as a politically expedient solution to perceived concerns about standards and ways to make schools accountable to parents, families, and society as a whole (Assessment Reform Group, 1999). A constructive and positive approach to assessment begins with an evaluation of the learning environment and considerations of how to modify it to enhance behaviour and learning. The approach then continues if necessary with a greater focus on understanding the individual student as behaving 'normally' and actively engaged in making sense of the situation in which s/he finds him/herself. Such an approach is more likely to empower students to take an active part in the management of their own behaviour.

The awareness of learning and ability of learners to direct it for themselves is of increasing importance in the context of encouraging lifelong learning. Assessment can therefore serve to either reinforce or undermine the motivation to strive for future achievement. Particular forms of assessment may assist, or alternatively damage, students' sense of their own ability to learn and achieve well in comparison with their peers. Assessment therefore must aim to build on students' experiences and identities and not marginalise or destroy them (Wearmouth, 2009). Assessment that is ongoing, continuous, and formative, and provides teachers with formal and informal opportunities to notice what is happening during learning activities, recognise where the learning of individuals and groups of students is going, and how they as the teacher can help take that learning further is likely to lead to positive learning gains (Assessment Reform Group, 1999). This process begins by ensuring students receive appropriate learning goals and are engaged in interactive conversations throughout their learning activities.

Differentiation of lesson activities, tasks, and resources needs to take account of the full range of learning needs among children in the classroom and any requirements of individual education plans. This includes current reading levels, consideration of possible visual and auditory difficulties, interest level of the poems that are used, considerations of student grouping in the classroom, prior experiences of students, the potential range of applications of ICT that might support learning, and so on. Resources include the human as

well as the material. In a primary classroom, discussion and preparation with teaching assistants and any other adults prior to the sequence of lessons is vital. If we focus on the needs of those learners who experience difficulties in language and cognition, it might seem sensible to use Bruner's three modes of representation – enactive, iconic, and symbolic – as a general framework for curriculum differentiation. Some students still need to learn by doing and require concrete objects to work with; others need recognisable representations of reality in the form of, for example, pictures; still others can benefit from using symbolic representations and abstract reasoning. This offers a clear justification for stating that good use of practical resources can make lessons interactive and motivational for children.

NOTES

1 www.nhs.uk/Conditions/pregnancy-and-baby/Pages/newborn-hearing-test.aspx – accessed 20.12.21.
2 www.nhs.uk/Conditions/pregnancy-and-baby/Pages/newborn-physical-exam.aspx – accessed 20.12.21.
3 In the DSM-V (APA, 2013), some of the areas of difficulty whose assessment is discussed here are termed 'neurodevelopmental disorders'. In brief, these are difficulties in which the development of the central nervous system is seen to be implicated. As set out in the DSM-V, the category of neurodevelopmental disorders includes specific learning difficulties such as dyslexia, attention deficit-hyperactivity disorder (AD/HD), autism spectrum disorder (ASD), communication disorders, intellectual developmental disorder, and disorders in motor movement.
4 https://icd.who.int/browse11/l-m/en#/http%3a%2f%2fid.who.int%2ficd%2fentity%2f1516623224 – accessed 20.12.21.
5 It should be noted that this document is updated every academic year.
6 https://icd.who.int/browse11/l-m/en#/http%3a%2f%2fid.who.int%2ficd%2fentity%2f437815624 – accessed 20.12.21.
7 https://www.rnib.org.uk/, accessed 20.12.21.
8 See the Additional Support for Learning (Co-ordinated Support Plan) (Scotland) Amendment Regulations 2005 (SSI 2005/518).

THE WIDER WORKFORCE ASSOCIATED WITH SPECIAL EDUCATIONAL, OR ADDITIONAL LEARNING OR SUPPORT PROVISION

INTRODUCTION

Particularly for families, but also for learners and their teachers, understanding the various roles of the range of professionals and para-professionals, inside and outside school, who may become involved with a particular child, knowing when and how to interact with them, and being confident in the process, can be very important to a learner's welfare and progress. The difficulties experienced by particular students vary and it may be impossible for families or schools to sort out the complex interaction of factors that produce or result in a learning or behaviour difficulty without the involvement of others. Indeed, the probability that students and their families will be involved with other agencies in addition to the school often depends on the complexity and severity of the difficulty, with more complex and severe difficulties (as well as some medical conditions associated with learning problems) generally being identified before school age.

This chapter will first outline the array of professionals and para-professionals and their potential roles in supporting children who experience some sort of difficulty. We begin with those working within settings, schools, and colleges: the special educational needs coordinator (sometimes called 'inclusion manager' or other such term) and teaching or classroom/teaching assistants. It will then

outline the role and function of some of the professionals employed by outside agencies. The chapter will go on to discuss challenges in relation to this kind of partnership work – with examples of what can happen in practice. This discussion will include issues of planning as well as what might be considered examples of good practice.

IN-SCHOOL STAFF

It is really important to note how, within an educational institution, the ethos and values of individual head teachers have a direct impact on the role, status, and, therefore, power of staff to work towards an inclusive culture (Cole, 2005). In the various Codes of Practice in England, Wales, and Northern Ireland there is reference to the advisability of the coordinator being a member of, or having a direct line of communication with, the senior leadership team of a school or college. Without the support of the senior management team, those with a specific responsibility for young people with special educational, or additional learning or support, needs can face a very heavy workload supporting vulnerable students who may not be particularly popular in some schools as, for example, in England, where schools compete with each other for positions on league tables of student outcomes.

ROLE OF THE COORDINATOR

In England, Wales, and Northern Ireland, the role of the special educational needs coordinator (SENCo) in schools developed in response to the introduction of legislation related to the identification of children with SEN and a statutory requirement to meet their needs. For example, in England and Wales, the SENCO role was conceptualised in the (DfE, 1994) *Code of Practice* that offered statutory guidance related to putting the Education Act of 1981 into effect. In many places, the role has developed considerably since that time. Under the Education (Special Educational Needs Coordinator) (England) Regulations 2014, in England, for example, a SENCO must be either a qualified teacher or head teacher/appointed acting head teacher. In England there is a prescribed qualification for SENCos:

> Where a person becomes the SENCO at a relevant school after 1st September 2009, and has not previously been the SENCO at that or any

other relevant school for a total period of more than twelve months, the appropriate authority of the school must ensure that, if the person is the SENCO at the school at any time after the third anniversary of the date on which that person becomes a SENCO, that person holds the qualification ... 'The National Award for Special Educational Needs Co-ordination'.[1]

(Education (Special Educational Needs Coordinator)

(England) Regulations 2014, §3)

Over time the role of the coordinator appears to have assumed more of a strategic function, albeit translated variously across individual settings, schools, and colleges. For example, the *SEN and Disability Code of Practice* (DfE/DoH, 2015) in England high-lights the way that the role has now assumed a strategic function at the level of the senior management team in a setting, school, or college:

The SENCO has an important role to play with the headteacher and governing body, in determining the strategic development of SEN policy and provision in the school. They will be most effective in that role if they are part of the school leadership team.

(DfE, 2015, §6.87)

The day-to-day responsibility of the SENCo is outlined as:

the operation of SEN policy and co-ordination of specific provision made to support individual pupils with SEN, including those who have an EHC plan.

(DfE, 2015, §6.88)

Key responsibilities in schools may include (DfE, 2015, §6.90):

- overseeing the day-to-day operation of the school's SEN policy;
- coordinating provision for children with SEN;
- liaising with the relevant designated teacher where a looked after pupil has SEN;
- advising on the graduated approach to providing SEN support;
- advising on the deployment of the school's delegated budget and other resources to meet pupils' needs effectively;
- liaising with parents of pupils with SEN;

- liaising with early years providers, other schools, educational psychologists, health and social care professionals, and independent or voluntary bodies;
- being a key point of contact with external agencies, especially the local authority and its support services;
- liaising with potential next providers of education to ensure a pupil and their parents are informed about options and a smooth transition is planned;
- working with the headteacher and school governors to ensure that the school meets its responsibilities under the Equality Act (2010) with regard to reasonable adjustments and access arrangements; and
- ensuring that the school keeps the records of all pupils with SEN up to date.

SENCOs may have responsibilities both at the level of the individual children and the whole school. They may take charge of budgeting, resource allocation, timetables, and other managerial and administrative roles. They may also work with individual students, as well as advising, appraising, and training staff, and liaising with outside agencies, professionals, and families. The SENCo is therefore often the lynchpin drawing together the various services to support young people's needs.

In Wales, under the new arrangements related to changes in the law, the coordinator is now named the Additional Learning Needs coordinator (ALNCo) who 'at a strategic level ensures the needs of all learners with ALN within the education setting are met' (§8.7). There is a recommendation that, given the strategic nature of the role, it should 'either form part of the senior leadership team' or else 'have a clear line of communication to the senior leadership team'. Further, the ALNCo should be:

> involved in the strategic co-ordination of ALN resources, such as in deploying and supporting staff and working with colleagues on the senior leadership team to plan and decide on the appropriate resources required to support staff within the setting. ALNCos **should** be actively involved in decisions around budgets and resources to help plan appropriate provision.

(§8.9)

In Northern Ireland, the draft Code, Section One, p. 3, states that new legislation has imposed 'new statutory duties on Boards of Governors of grant-aided schools, including a requirement to designate a teacher of the school as a Learning Support Coordinator (LSC) […]' (https://www.education-ni.gov.uk/sites/default/files/consultations/education/The%20draft%20Code%20-%20Section%201%20-%20Introduction_0.PDF). The roles that are specified are many and various, and reflect those of the SENCo in England very closely in terms of their strategic nature (see §2.49 of the draft Code).[2]

In Scotland, the Code (2017, p. 8) defines a lead professional role to coordinate support for a child 'where there is a Child's Plan and targeted interventions'. The role has been conceptualised to ensure that the learner and the family understand the process so that they are able to participate in decision-making at every point and, in doing so, 'to be the main point of contact for children, young people, practitioners and family members, bringing help to them and minimising the need for them to tell their story several times'. Among other responsibilities, the lead professional is also expected to promote teamwork between the child, external agencies and the family, 'to ensure the Child's Plan is implemented and reviewed regularly'.

IN-CLASS SUPPORT ARRANGEMENTS

The use of support staff in the classroom to assist students who experience some kind of difficulty in learning or physical disability is common practice in many schools these days. The 'core' team in the classroom is usually the class teacher and one or more teaching assistants (TAs) who, overwhelmingly, tend to be female. The responsibility for student–adult interactions in classrooms, together with oversight of support staff's work with individual students, belongs to teachers. Teaching assistants, for example, cannot, legally, be *in loco parentis* (in the place of a parent) in the same way as a teacher can. As in other Codes, the draft Code in Northern Ireland, for example, (DENI, 2021, §2.50) makes this point very clearly: 'All teachers are responsible for the day to day teaching and learning in their classroom of all children whom they teach including pupils with SEN […]'. Funding in-class support is an expensive option for schools. It was always inevitable, therefore, that the effectiveness of this kind of

provision would come under great scrutiny as demands for accountability in education have grown.

Teaching assistants and other support staff – 'paraprofessionals' – are part of a large workforce in schools. The rapid expansion in numbers of TAs has shifted the focus of their work from simply preparing resources, general assistance, clearing up, student welfare, and so on, to duties much more clearly focused on student learning and achievement (Wearmouth, 2009). A second adult in the classroom can, as Lorenz (1998) comments, increase the child/adult ratio, make time to listen to students and their point of view, and thus increase the amount of positive attention available to students. S/he can also be responsible for giving regular praise and encouragement to particular students while the class teacher takes responsibility for the learning programme; intervene early where misbehaviour is developing and nip problems in the bud; and give individual children space to calm down without disrupting the class. New TA roles have been introduced, for example, 'learning mentors' in some schools.

Most schools employ assistants in classrooms, but their roles vary. They may, or may not, have some formal training. Infant and primary teachers may well also have the help of a nursery nurse, who may be trained in language and number skills and in social and moral education, or a qualified classroom assistant, at least for some of the time. Special support assistants/special attachment welfare assistants/special individual teachers may be employed in some schools to support children on Statements of SEN, or Education, Health and Care plans arising from the relevant Special Needs Code of Practice. SITs are trained teachers allocated to individual children. Special teacher assistants are trained to work alongside teachers in classrooms, focusing on key curriculum areas such as mathematics and English. In some schools, individual governors are assigned to different classes and make visits to familiarise themselves with classroom life and routines. In many schools, parents come in to assist teachers in classrooms. Schools should have clear policies for parental involvement and may have a teacher who is responsible for partnership with parents.

EFFECTIVE USE OF SUPPORT STAFF IN CLASSROOMS

Ideally, partnerships between teachers and support staff should be built on a foundation of mutual respect and trust and a common understanding of how to address the difficulties in learning that some

students might face. Having said this, positive relationships are not created automatically. They often develop out of accommodations made by all parties as they negotiate their ways of working and establish their working relationships. The potential for clashes inherent in a situation where, traditionally and conventionally, one professional has been seen to be in control by him/herself is clear. If the adults are not in close agreement, or do not get on, students will play one off against another. Students often have a strong sense of where power and control lies in the classroom and of fairness.

Cremin et al. (2003) comment that having TAs in a classroom does not necessarily lead to improved learning and behaviour for students. Balshaw's (1991) description of LSAs, for example, as potentially being 'overgrown students', 'piggy in the middle', 'spies in the classroom', or 'dogsbodies' illustrates how things can go seriously wrong and an implied lack of respect that is unhealthy for everyone. Situations where LSAs are treated like children are likely to result in low status for those LSAs among the students. They can find themselves in a 'go-between' role if the teacher assumes that responsibility for the learning and behaviour of particular students lies with them. For example, where work expected of the student is far too difficult, easy or otherwise inappropriate, and there is no direct communication or discussion between student and teacher, the LSAs may find themselves shuttling to and fro, overburdened with messages and tasks and unsupported. Either students or teachers can feel themselves spied upon if there is little trust in classroom relationships, or where the LSAs cannot maintain an appropriate sense of balance in their responsibilities to teachers and individual students.

Effective use of staff and their skills can often depend on how the team is organised. Findings from a study that used a number of indicators to evaluate the effectiveness of TAs in schools, the Deployment and Impact of Support Staff (DISS) project (Blatchford et al., 2009), indicated that:

- TAs impacted positively on teachers' workloads, job satisfaction, and levels of stress. They were able to focus their attention on individual pupils and minimise disruptive behaviour.
- TAs spent the majority of their time working with small groups or 1:1, usually those pupils with SEN or lower attaining, much more rarely with high and middle attaining pupils.

- Teachers tended to spend the majority of their time leading or supervising the whole class. Comparatively little of their time was spent working with groups or individual pupils, and when they did, it was rarely with pupils with SEN.
- TAs were often expected to lead interventions which tended to be separate from the whole class teaching and learning environment.
- In general, pupils receiving the greatest support from TAs made less progress than similar pupils who had less TA support. This remained the case even after allowance had been made for influencing factors such as SEN, EAL, FSM, and prior attainment.
- TAs tended to be focused on finishing a set task, rather than encouraging independent learning through open questioning and focused discussion, whereas teachers tended to extend learning through specific feedback and more detailed explanations of new concepts to ensure understanding.
- There was a consistently expressed view that teachers and TAs had little or no designated planning and feedback time. This often leads to TAs feeling insufficiently prepared and dependent on teacher input to gain subject knowledge and task requirements.
- Teachers had very often not received training on deploying and managing TAs.

One conclusion of the project was that the lack of impact on learner achievement related to the way in which TAs were poorly prepared for the pedagogical role to which they were usually deployed, with a tendency to be reactive rather than proactive when addressing learner needs, thus creating learner dependency on them rather than fostering independent learning. Some of the recommendations from this report relate to preparedness, deployment, and the practice of support staff:

- Preparedness: more needs to be done to prepare teachers with the necessary skills and preparation to manage support staff and to prepare classroom-based support staff for their role in schools, especially for the pedagogical role with learners. More time should be available for joint planning and feedback, and for considering how TAs might be deployed effectively;
- Deployment: support staff should not routinely support lower attaining learners. Instead, learners in most need should get more

teacher time. Teachers should take responsibility for curriculum and pedagogical planning for all learners in the class;

- Practice: conceptualising the pedagogical role of TAs needs to be built into professional development, school deployment decisions, and the management, support, and monitoring of support staff.

In brief, for classroom assistants to be effective, teachers need training to manage support staff in their lessons, and assistants need training for their pedagogical roles.

A further study, the Effective Deployment of Teaching Assistants (EDTA) project (Blatchford et al., 2012; Webster et al., 2013, 2016), put the recommendations from DISS into effect in ten primary schools over the course of one year. The evaluation showed that the trials conducted by each school improved the way school leaders and teachers thought about and deployed TAs:

- Preparedness: TAs' pre-lesson preparation was improved over the year, as were the quality and clarity of teachers' lesson plans. Teachers made more effort to meet with TAs before lessons and some schools adjusted TAs' hours of work to create meeting time. The tasks and expectations of TA roles were made explicit in planning;
- Deployment: TAs worked more often with middle and high attaining learners, spent less time in a passive role and withdrew learners as little as possible from the classroom to help maintain contact with the mainstream curriculum, and teachers spent more time with low attaining learners and those with SEN. There was a greater emphasis on peer support, collaborative group work, and self-help strategies in the classroom;
- In terms of practice, there was a growing focus on changing the nature of TA/learner talk and giving learners longer to respond on open, rather than closed, questioning; on enhancing learner understanding rather than task completion; and on encouraging autonomy in learning rather than adult dependency;
- Teachers also became more aware of the significance of the role of the TA, who felt more valued and appreciated, enabling them to carry out their tasks with greater confidence.

A survey of 210 school leaders by Unison (2013) generated overwhelming support for the role and impact of TAs, with the above findings being considered too generalised. Recruitment, deployment, management, and training are often inconsistent but, when systematic, TA impact on raising attainment is deemed to be effective. Interestingly, nearly all respondents stated that they employed TAs to work with individual learners, small groups, and those with SEN, adding weight to the possibility that teachers are delegating their teaching responsibility for lower attaining learners to predominantly less well-qualified TAs.

COLLABORATION BETWEEN PROFESSIONALS

The concepts of 'special educational' and 'additional learning' and 'support' needs cover a wide area that may go well beyond school and the conventional realm of 'education' into, sometimes, health and welfare. Collaborative working is not a new concept. Multi-agency collaborative working practices have been encouraged by various governments as paramount for the safety of children since the 1980s, with subsequent recommendations about training in joint working practices for health professionals, social workers, teachers, and others (Dunhill, 2009). Despite the move towards greater inter-agency collaboration over a long period of time, however, as Nethercott (2015) notes, reports from many child protection reviews within the UK over the past 20 years (Laming, 2003; Reder & Duncan, 2003; Brandon et al., 2008, 2009; RBSCB, 2012) have concluded that a lack of communication between agencies has contributed to the death or serious abuse of a child. The three primary care agencies, education, health, and social services, have tended to operate under different legislative frameworks with different priorities and definitions of what constitutes a need (Roaf & Lloyd, 1995).

System failure was illustrated in the case of the tragic death of Victoria Climbié, a child known to be at risk by both educational and social services. In 2003, alongside the formal response to the report into the death, the government published *Every Child Matters* (DfES, 2004) and the Children Act (2004) that gave legal force to five interdependent outcomes (DfES, 2004). The clear failure re-emphasised the need for closer cooperation between agencies that exist

to support children in difficulties and their families or carers. The 'Every Child Matters' agenda (DfES, 2004) sought to resolve these difficulties by unifying the range of children's services. All local education authorities combined with other services to become local authorities (LAs).

In the past, it has often been quite difficult for schools to work closely with outside agencies to protect the welfare of individual students seen by teachers as at risk of injury or abuse. In terms of child welfare, there is a long history of problems in inter-agency work in, for example, the exchange of information between agencies and of disputes over responsibility for offering particular services, sometimes with duplication of interventions by different agencies working on the same case (Roaf & Lloyd, 1995). Lack of clear structure to determine responsibilities in inter-agency working could also generate considerable tension, especially when resources were under pressure. The loser has been the child and his or her parents or carer.

STATUTORY REQUIREMENTS

Across the UK and Northern Ireland the various Codes of Practice make specific mention of the importance of inter-agency collaboration in supporting the learning and behaviour needs of young people. The Code in Wales, for example, states (NAW, 2021, §8.14)

> Some learners with ALN will need the support of external agencies and professionals. It will be the responsibility of the ALNCo to liaise with these specialist services and when there is agreement to provide such services, ensure that these are secured.

One of the initiatives introduced in Wales by the new law in response to previous criticism about problems in the working relationship between education and health services was the introduction of the role of the DECLO:

> Every Local Health Board **must** designate an officer to have responsibility for co-ordinating the health board's functions in relation to children and young people with ALN. That person is known as the "designated education clinical lead officer".

(§9.1)

> The DECLO **must** either be a registered medical practitioner or a registered nurse or another health professional.
>
> (§9.2)

The local health board functions that the DECLO is responsible for coordinating include:

(a)   securing the ALP (that is, the relevant treatment or service) described in an IDP as provision to be secured by the Local Health Board (including taking reasonable steps to secure its provision in Welsh where this is required) [...];

(b)   participation in reviews of IDPs in which a relevant treatment or service is set out as ALP to be secured by the Local Health Board [...];

(c)   informing parents and local authorities of the Local Health Board's view that a child under compulsory school age probably has ALN;

(d)   giving evidence to the Tribunal in an appeal in relation to ALN matters;

(e)   dealing with recommendations made to the Local Health Board by the Tribunal about the exercise of the Local Health Board's functions.

(NAW, 2021, §9.4)

RANGE OF SERVICES

Since 2014, LAs in England have been required to publish their 'Local Offer'. This means the publication, in one place, of information about provision available in their area for children and young people who experience SEND, from birth to the age of 25. The local offer must include both local provision and provision outside the area that the LA expects is likely to be used by children and young people with SEND for whom they are responsible. This can cover education, health, and care services. Table 11.1 outlines some of the different individuals with whom practitioners and families might expect to work and gives an indication of their job role.

Table 11.1 Range of external professional roles

Title	Role
Educational psychologist (EP)	EPs have knowledge and understanding of children's development, assess individual children's learning and/or behavioural needs, and provide training for staff.
Teacher for the hearing impaired (HI)/ visually impaired (VI)	Teachers for hearing or visually impaired children work closely with health and social care and other agencies (where appropriate) following diagnosis to advise teachers and other practitioners in settings, schools, and colleges, and may also teach deaf and visually impaired children and young people.
Portage and early support	Portage is a home-based education service for families with a child or children from birth to five with complex additional learning or support needs. Portage-trained staff work closely with a wide number of other professionals from social care, health, and the voluntary sector. These staff offer advice and support to pre-school settings and may support the child through the transition process into pre-school or school.
Paediatrician	Paediatricians are specialist doctors who look after babies and children. They are often involved, particularly early on, when there are concerns a child may have an impairment or disability. They are able to direct children to other paediatric specialists, for example, therapists, psychologists, and specialist nursing services as needed.
Health visitor (HV)	Health visitors are qualified nurses or midwifes with specialist training in child health. They give help, advice, and practical support to families about the care of children under five. If a child has special or additional needs, they may be part of a team of professionals working to support the child and family.
Speech and language therapist (SLT)	SLTs provide specialist assessments and support and advice to parents/carers and professionals. They assess and treat speech, language, and communication problems in people of all ages to help them communicate.

(Continued)

Table 11.1 (Continued)

Title	Role
Physiotherapist	Physiotherapists are health care professionals who provide specialist assessment and intervention to children and young people who have a range of conditions involving physical and movement difficulties that limit their mobility, function, and/or independence. They work in a range of locations, including clinics, school, and pre-school settings, homes, and respite, or voluntary care settings.
Occupational therapist (OT)	Health professionals who work with a variety of children with special educational needs, disabilities, and complex health difficulties. They aim to help children and young people to play, learn, and look after themselves.
Clinical psychologist	Clinical psychologists offer a range of services for children and young people if there are concerns about their development, behaviour, mental health, and relationships. In particular, they may carry out specialist assessments: neuropsychological, diagnostic, and/or behaviour.
Child mental health teams	Children's mental health nurses provide advice and support for behaviour management, offer counselling and support to children using a variety of therapeutic approaches, and direct children and young people to other agencies as appropriate.
Social worker	Social workers' roles with children with special educational needs and disabilities include: • informing the County Council of any children who they think may have SEND; • ensuring that schools have a contact for seeking social work advice; • coordinating social services' advice for any statutory assessments, transition reviews, and annual reviews as appropriate; • ensuring social services provision is made for any children with SEN where appropriate; and • attending annual reviews for 'Looked After Children' who hold EHC plans.

INTER-AGENCY COLLABORATION AND STATUTORY ASSESSMENT OF SPECIAL EDUCATIONAL, AND ADDITIONAL LEARNING OR SUPPORT, NEEDS

Across the UK, statutory assessment of children and young people's special educational needs and disabilities and/or additional learning or support needs requires effective inter-agency collaboration in order to ensure that they are supported with the special/additional provision that they need in order to engage with the school or college curriculum and make good progress. In Scotland, for example, the individual plan that results from statutory assessment is termed 'a co-ordinated support plan'.

In England, the Education, Health and Care plans introduced by the Children and Families Act, 2014, by definition also require a similar degree of collaboration, however problematic the history of such collaboration may have been in previous years. The DfE's (2015) *Code of Practice*, for example, reads:

> 1.22 If children and young people with SEN or disabilities are to achieve their ambitions and the best possible educational and other outcomes, including getting a job and living as independently as possible, local education, health and social care services should work together to ensure they get the right support.
>
> 1.23 When carrying out their statutory duties under the Children and Families Act 2014, local authorities must do so with a view to making sure that services work together where this promotes children and young people's wellbeing or improves the quality of special educational provision (Section 25 of the Children and Families Act 2014). Local authorities must work with one another to assess local needs. Local authorities and health bodies must have arrangements in place to plan and commission education, health and social care services jointly for children and young people with SEN or disabilities.

The Code in England goes on to offer statutory advice about joint commissioning arrangements between education, health, and social care:

> 3.9 Joint commissioning arrangements must cover the services for 0–25 year old children and young people with SEN or disabilities, both with and without EHC plans. Services will include specialist support and therapies, such as clinical treatments and delivery of medications, speech and

language therapy, assistive technology, personal care (or access to it), Child and Adolescent Mental Health Services (CAMHS) support, occupational therapy, habilitation training, physiotherapy, a range of nursing support, specialist equipment, wheelchairs and continence supplies and also emergency provision. [...]

3.10 Local authorities, NHS England and their partner CCGs must make arrangements for agreeing the education, health and social care provision reasonably required by local children and young people with SEN or disabilities. In doing so they should take into account provision being commissioned by other agencies, such as schools, further education colleges and other education settings. Partners should commission provision for children and young people who need to access services swiftly [...].

CHALLENGES FOR MULTI-AGENCY COLLABORATION

One of the aims of collaborative working is to support the integration of services; when it works effectively as we have seen above it can lead to greater understanding and knowledge of other professional roles (Whiting et al., 2008), but different services are organised in diverse ways, with legislative requirements, funding, and competition between services at times hindering collaboration. It is vital that practitioners are aware of the potential pitfalls of collaboration and reflect on how they can be overcome for the benefit of all involved. There are many potential areas of concern that can arise but here we focus on those that are particularly relevant to the early years sector.

ISSUES AROUND CULTURE AND VALUES

Professional boundaries

All those involved in collaborative work need to be valued and their differing perspectives and values respected to enable their training and experiences to contribute collectively to the support of children. Despite wishing to provide a more effective service to meet the needs of a child, professionals working closely together with different visions of children and families, different beliefs about what is important, diverse working practices, and so on can lead to them 'unconsciously endeavouring to preserve a professional boundary around the group' (Nethercott, 2015, p. 40). A health professional's

perspective on the needs of a child might focus on very different elements relating more narrowly to, say, physical development, stemming from their training and experiences within a medical setting. Each might feel their perspective is more important than the other, and difference of opinion can ensue.

STATUS AND POWER

The issue of power relationships can be a knotty problem for collaborative working. Qualifications, and indeed disciplines, attract a certain status and authority, however, as Aubrey (2010, p. 210) suggests, in such situations authority should 'rest on knowledge and expertise rather than on status'. If we firmly place the needs of the child at the centre of our work we should ensure that all professionals have an equal opportunity to share their knowledge and understanding of the child freely and safely, and be listened to respectfully.

PRACTICAL CHALLENGES

Some of the practical challenges that, for example, practitioners in the early years sector might encounter, are clearly identified by Wall (2011) and confirmed by Griggs and Bossard (2017):

- Time, money, and resources will always be an issue. However, it is also the responsibility of teachers and institutions to be proactive and creative, share practices and ideas within their networks, and carefully plan and prioritise their time and resources.
- Often there is overmuch bureaucracy and barriers to efficiency.
- No one system is workable in every context. Much relies on the will of practitioners to make systems work for the children and families they deal with, as far as possible.

ISSUES IDENTIFIED DURING THE PILOTING OF EHC PLANS

During the piloting of EHC Plans (DfE, 2014c, p. 14), a number of 'Key challenges and enabling factors' related to multi-agency working were identified. In some cases, these issues were interpreted as 'fundamental to the new process' (ibid.). It has to be said that a proactive position was taken in these pilots to suggest solutions to these

challenges. The first identified challenge was 'ensuring sufficiency and consistency of multi-agency working' that might be addressed by:

- increased levels of strategic and operational commitment to contribute to the new process;
- provision of clear guidance to all professionals detailing expectations of how, when, and why they should be involved;
- creation of 'champions' or 'spearheads' for individual agencies (and services within these) to act as the point of contact for the EHC planning process; and
- introduction of proportionate approaches to multi-agency working, for example, use of multimedia to enable capacity constrained professionals to input to meetings.

Another was the 'sharing of information between agencies and with families' that might be achieved by (p. 15):

- having the family as the holder of all information and paperwork and relying on them to give permission and transfer it from place to place; and
- development of an integrated IT system that enables all relevant professionals and families to access the 'live' EHC plan and grants differing levels of permissions for distinct parties to edit the plan.

SUMMARY

There are two particular areas in schools where work with other professionals is important: classroom learning and child protection. Funding in-class support for students is an expensive option for schools and recent research has shown that this is not always effective. In the classroom, there are a number of different ways of conceptualising the role of support teachers which indicate the need to consider very carefully the aim of this kind of provision.

Policies related to the *Every Child Matters* agenda have not been entirely successful in resolving in-agency working. The 'single most important factor' identified by Wilson and Charlton (1997) underpinning successful inter-agency work remains the existence of a clear inter-agency structure where a policy and planning group with members drawn from all the agencies supported a multi-agency, multi-disciplinary

team. An effective networking system provided feedback about gaps in provision, identified needs and resources, and facilitated the free flow of information among a wide range of practitioners.

In a similar vein, in the systematic literature review, *Multi-agency working and its implications for practice* (Atkinson et al., 2007, pp. 3–4), a number of factors were identified as essential to effective multi-agency practice. The experience of many of those working in the field of practice in special or additional provision for young people who experience difficulties would indicate how important these factors remain in ensuring the effectiveness of multi-agency working arrangements:

- 'clarifying roles and responsibilities';
- 'securing commitment at all levels […] engendering trust and mutual respect';
- 'fostering understanding between agencies (e.g. through joint training and recognition of individual expertise)';
- 'developing effective multi-agency processes: ensuring effective communication and information sharing';
- securing the 'necessary resources for multi-agency work and […] securing adequate and sustained funding (e.g. through pooled budgets […]';
- 'ensuring continuity of staffing […] and an adequate time allocation';
- 'ensuring effective leadership […] although also dependent on effective governance and management arrangements […] and an effective performance management system';
- 'providing sufficient time for the development of multi-agency working';
- 'the provision of joint training'; and
- 'agreement of joint aims and objectives'.

NOTES

1 Published guidance on this award, including the learning outcomes, is available at www.gov.uk/government/publications/national–award–for–sen–co–ordination–learning–outcomes – accessed 22.12.21.
2 https://www.education–ni.gov.uk/sites/default/files/consultations/education/The%20draft%20Code%20-%20Section%202%20-%20The%20Law%2C%20Roles%2C%20Rights%20and%20Responsibilities_0.PDF – accessed 22.12.21.

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