Delivering Skills for Life:

The national strategy for improving adult literacy and numeracy skills

Introducing *Access for All*

Supporting learners with learning difficulties and disabilities across the curriculum

department for education and skills

read·write·plus

Skills for Life

the national strategy for improving adult literacy and numeracy skills

Many millions of adults in England need help to improve their literacy, language and numeracy skills. *Skills for Life*, launched by the Prime Minister in 2001, sets out the Government's strategy for meeting these needs.

Since the launch of *Skills for Life*, we have gained an even greater insight into the effect low levels of literacy and numeracy skills have on individuals, their families, on the economy and on society. For example, adults with poor literacy and numeracy skills could earn up to £50,000 less over their lifetime and are more likely to have health problems, live in a disadvantaged area or be unemployed. They and their children risk being cut off from the advantages of a world increasingly linked through information technology. Additionally, poor literacy, language and numeracy skills have been estimated to cost the country in excess of £10 billion a year.

Skills for Life is not just an education-only strategy, nor is it just a Government response to address literacy, language and numeracy skills needs. It covers all post-16 learners on learning programmes at levels from Pre-Entry up to and including Level 2. These courses range from discrete and embedded, classroom and community provision to voluntary and work based learning. *Skills for Life* addresses assessment through Key Skills, GCSE Maths and English and adult literacy and numeracy skills certification. So it is crucial that the strategy supports and reflects the successful implementation of other post-16 strategies. These include *Success for All*, the strategy for reforming post-16 further education, and the *Skills Strategy*, which aims to ensure that the skills we develop are valuable to young people and valued by employers. Our goal to improve the skills of young people is also central to the *Opportunity and Excellence* 14–19 strategy.

Every organisation and individual has a contribution to make. Partnership and the ownership of *Skills for Life* by all our key, supporting and development partners are the most important elements for successful delivery.

Government departments, the Learning and Skills Council (LSC), JobCentre Plus, the Prison and Probation Services, external partners in the post-16 learning sector, businesses, the CBI, TUC and many others are working together to improve the literacy, language and numeracy skills of adults through:

- Boosting demand for learning via a high profile promotional campaign and by engaging employers and all partners across Government in identifying and addressing the literacy and numeracy needs of their clients and employees.
- Ensuring capacity by securing sufficient funding and co-ordinating planning and delivery to meet learners' needs.
- Improving the standards of teaching and learning in literacy, numeracy and English for Speakers of Other Languages (ESOL) provision.
- Raising learner achievement through the new national learning, teaching and assessment infrastructure and reducing barriers to learning.

Introducing *Access for All*

Supporting learners with learning difficulties and disabilities across the curriculum

Introduction

This guidance is part of *Skills for Life*, the Government's strategy (launched in 2001) for meeting the needs of the 7 million adults in England with low literacy, language and numeracy skills.

One of the first developments of *Skills for Life* was the national standards of attainment for listening, speaking, reading, writing and numeracy, which were published by the Qualifications and Curriculum Authority (QCA) in 2001; these standards were followed by core curriculum documents for adult literacy, numeracy and ESOL, by guidance on making the core curricula accessible (*Access for All*) and by *The Pre-Entry Curriculum Framework for Literacy and Numeracy*. All these documents were published between 2001 and 2002.

Access for All was written to support teachers using the adult core curricula in literacy and numeracy who had learners with learning difficulties or disabilities in their classes. It contained an introduction that gave detailed guidance on the legislative background to working with learners with learning difficulties and/or disabilities, and an account of the effect of individual difficulties and disabilities on a learner's ability to learn.

Access for All was well received by practitioners, and its introduction came in for particular praise. The general opinion was that the guidance this introduction offered would be relevant to all teachers and staff working in the post-16 curriculum, and there were many people who requested that it be presented as a stand-alone publication.

The current manual has been produced in response to that request. It is based on the seven groups of difficulty and disability used in *Access for All*.* These groups of learners are discussed in detail in Section 2 of this manual.

* These groups of learners were based on those identified in the Department for Education and Employment's 2000 publication, *Freedom to Learn: Basic skills for learners with learning difficulties and/or learning disabilities*. *Access for All*, and the training based on it, took the six groups of learners identified in the DfEE publication and added a seventh group, learners with autistic spectrum disorders.

The original *Access for All* introduction has been revised in this manual to make it more relevant to staff working across the whole range of curriculum areas.

- **Section 1** covers the policy and legislative background, before going on to consider fundamental issues relating to all disabled learners.
- **Section 2** examines issues relating to particular learning difficulties and disabilities, including the impact on learning of the particular disability, the use of technology and helpful approaches to consider when working with this group of learners.
- There is a section on **resources** at the end.

The aim throughout is to help teachers and others understand how learning difficulties and disabilities can affect learning, and to support them in developing strategies that can foster the creation of an inclusive learning environment.

Section 1

Background and key issues

Background and key issues

Policy and legislative background

This manual aims to give all teachers practical information and strategies to help them implement the vision spelt out in *Inclusive Learning* (FEFC 1996). It will also ensure that they fulfil the requirements of the Learning and Skills Act and the requirements of DDA Part 4. It is crucial for practitioners working with learners with learning difficulties and/or disabilities to keep themselves fully updated on current policy and legislation. The information that follows represents an attempt to cover the main developments in the field of policy and legislation.

Over recent years there has been increasing recognition of the need to include those learners who, because of their learning difficulty or disability, have previously often been excluded from education.

The Learning and Skills Act 2000 states that the Learning and Skills Council (LSC) has a duty 'to have due regard to promote equality of opportunity between disabled and non-disabled learners'.

Disability Discrimination Act Part 4

The Special Educational Needs and Disability Act 2001 brought education under the Disability Discrimination Act (DDA) as DDA Part 4.

The effect of DDA Part 4 is that, for the first time, disabled learners have legal rights in terms of their access to post-school education. The Act states that providers of post-16 education have a duty not to treat disabled learners 'less favourably' for any reason related to their disability and to provide 'reasonable adjustments' when a disabled learner is likely to be at a substantial disadvantage in relation to a learner who is not disabled. These duties apply not just to teaching staff, but to any staff in the organisation, for example security guards or canteen workers.

DDA Part 4 came into force in September 2002. Duties relating to 'auxiliary aids and services' – adjustments that require additional staff or equipment – come into force from September 2003, and duties requiring changes to physical features come into force from September 2005.

Disclosure and confidentiality

Some disabilities are visible. Others, such as mental health difficulties or dyslexia, are not. If a learner has not disclosed a disability, they may not be able to prove that they have been discriminated against. Nethertheless, the organisation does have to take 'reasonable steps' to encourage disclosure.

This means that you, as the provider of learning, need to create an atmosphere, both at induction and as the course proceeds, in which any learner feels that they can talk in private to a member of staff if they feel they have needs which are not being addressed. The language used is important here. Some learners may not see themselves as having a 'disability', but they may recognise that they have particular requirements.

The difficulties of some learners, particularly those with dyslexia, may not have been previously identified and these learners may not realise that they have a disability to disclose. It is therefore important that staff are able to recognise such difficulties and that these learners are offered opportunities for a specialist diagnostic assessment.

If a learner discloses a disability or an additional need to one individual, the whole institution is, under DDA Part 4, deemed to know. This means that you need to think about how, with the learner's consent, you can pass on information about support needs to the appropriate person or team in your organisation.

Some individual learners may not want anyone else to know about their disability. In such instances it may be impossible for staff to put in place the most appropriate 'reasonable adjustment'. In general, however, disabled learners are far more confident about disclosing a disability if they feel that both the organisation as a whole and individual staff have a positive and supportive attitude towards anyone who might have additional requirements.

Inclusive learning

In 1996 the Further Education Funding Council (FEFC) produced an influential report, *Inclusive Learning*, written by a committee chaired by Professor Tomlinson. In essence, this report shows how learners with learning difficulties and/or disabilities do not solely or necessarily require specialist additional support to gain access to the curriculum. Rather, the whole process of teaching and learning needs to be broadened to include the full range of learners:

There is a world of difference between, on the one hand, offering courses of education and training and then giving some students who have learning difficulties some additional human or physical aids to gain access to those courses, and, on the other hand, redesigning the very process of learning, assessment and organisation so as to fit the objectives and learning styles of the students. FEFC 1996, p4

Key principles for curriculum delivery

Inclusive Learning (FEFC 1996) states that all learners are entitled to a learning environment that matches their individual requirements. For this to occur, there has to be a match between how the learner learns and how he or she is taught.

Making curriculum delivery responsive to the needs of a wide range of individual learners – and thus maximising learning, achievement and learner satisfaction – rests on the following essential principles with a long and respected history in education:

- Assess what the learner can do and build on previous knowledge.
- Listen to learners, to identify what does, and what does not, help them to learn.
- Use learners' own words, language, materials and personal context as much as possible.
- Develop learners' skills through whatever motivates and interests them.
- Keep expectations high, while giving learners opportunities to experience success in their own terms.
- Base teaching approaches and assessment methodologies on individual learning styles and help learners to understand their own learning styles.
- Consider the learning environment and learning materials and their impact on learning; adapt these where possible to meet individual needs.
- Where learners have a persistent difficulty, look for alternative approaches and/or methods of support.
- Be clear about the purpose of any activity and how it relates to the skills being developed and the needs of the individual learner.
- Make everything explicit and check understanding frequently.
- Review and monitor learning at each stage with the learner.
- People have different individual strengths and weaknesses: build on their strengths.
- Remember that many learners have a 'spiky' profile, with skills and abilities at different levels.

Who are the learners?

Learners with learning difficulties or disabilities have a wide range of strengths and weaknesses, which may affect their learning in different ways and to varying extents. Such learners are found on courses at all levels and in every curriculum area and their needs vary enormously as the following examples illustrate:

- Learners with learning difficulties may have cognitive impairments and difficulties with abstract concepts.
- Those with sensory impairments or physical disabilities may have access problems (eg to classrooms and equipment, teaching and learning materials, classroom activities) and may also have difficulties with communication, because of limited speech, sight or hearing.
- Learners with dyslexia and related difficulties may be well able to handle the course content but may find written language skills and taking in information more of a problem.
- For those with autistic spectrum disorders or mental health problems, the main difficulties they encounter may be in dealing with the classroom context and communicating with others.

It is important to acknowledge that these differences exist and that learners with the same disability may have very different needs. Learners are first and foremost individuals and they have their own personal interests, ways of relating, and likes and dislikes.

Adults with learning difficulties or disabilities are not 'new' learners. They may have been successful in some aspects of learning, but less successful in others. For instance, some aspects of written language may remain difficult for learners with dyslexia or with sensory or some physical impairments.

Unlike young children, adults have already developed physiologically as well as psychologically; this includes the neurological 'pathways' for processing perceptual (eg visual and auditory) information. Adult learners with processing difficulties or sensory or motor impairments use many, sometimes all, of these pathways, but not with complete success; others have a range of cognitive difficulties affecting their learning. Adults with cognitive learning difficulties are also unlike children developmentally; in addition they may have developed compensating strategies for weaknesses in perception, memory and processing written language and they may have developed a number of effective practical skills and 'life' skills.

Because of this uneven development, adult learners often have a 'spiky' profile of skills – they have considerable ability in certain areas but find others very hard. This profile may cross several levels and is determined by the learners' sensory, motor, perceptual and cognitive strengths and weaknesses. Consequently, adult approaches that respect and use learners' strengths to help learning are likely to be the most effective.

It is important to address the individual strengths and weaknesses of learners in planning learning and in determining teaching approaches. There are common profiles for learners with certain difficulties, but there is also great variation among individuals. This individual learning 'style' should influence teaching and learning.

Examples of 'spiky' profiles

A deaf learner whose first language is British Sign Language (BSL) may be very good at learning the course content and able to keep up with her course reading on a Level 2 course. However, her written grammar and vocabulary may not be at the appropriate level because of the differences between BSL and standard English and because of her lack of exposure to spoken English.

A dyslexic learner with visual–motor processing problems may be extremely articulate in class and have no difficulties with the concepts on his Level 3 course. However, he may struggle with course texts and have writing skills that are below Level 2 as a result of handwriting and spelling difficulties, though the content of his work is at Level 3.

Subject teachers need to realise the importance of their role in developing learners' basic skills and study skills, as well as their subject knowledge. Learners who find basic skills difficult to acquire need to put in greater effort, so motivation and relevance are especially important. In addition, many learners with learning difficulties or disabilities, such as those who are dyslexic, learn better in context and may be able to read at a higher level in an area of personal interest.

Like other learners, those with learning difficulties or disabilities may also have other factors affecting their learning: for example, they may speak English as an additional language. Equally, they may have a range of other disabilities along with a primary learning difficulty or disability.

As with all adults, the previous experience of adults with learning difficulties and disabilities will have a bearing on their approach to learning. This previous experience will be as varied as with other adults:

- Some have had positive school experiences, where they were given challenging opportunities and achieved success through appropriate support and encouragement.
- Some, particularly dyslexic adults, may not have had their dyslexia identified at school nor received appropriate support.
- Others may have been at a special school and may be participating in a mainstream course for the first time.

Motivation is particularly important for adults who experience a number of barriers to learning. The effects of a learning difficulty or disability may be a significant barrier, but often the real barriers are the result of others' responses to the person or his or her difficulty or disability. For learners, these barriers include a prior experience of failure and low self-esteem. Teachers' negative perceptions and low expectations can present barriers. For all these reasons, it is vital to give such learners a successful experience of learning. To do this, it is important to avoid repeating strategies and approaches that failed previously, and instead to find approaches that suit learners' learning styles and reduce the emotional barriers to learning.

Teachers who have had no previous experience of working with people with a learning difficulty or disability may feel insecure about how to respond to a learner. They may feel that they cannot teach this learner without some special expertise. In general, however, effective teaching approaches – which offer variety in the presentation of material, engage learners in active learning, structure the development of skills, and are flexible in addressing individual needs and learning styles – will help all learners.

Terminology

People often have concerns about the appropriate terminology to use when speaking to and about disabled people. This is understandable, considering that terminology is continually changing.

The table overleaf is a guide to commonly preferred words and phrases to use with post-school learners. Individual learners may have individual preferences: for example, some people may prefer the term 'disabled person' and others 'a person with a disability'. Some learners who have worked with social services self-advocacy groups may prefer the term 'learning disability' to 'learning difficulty'. Check with individual learners how they wish to define themselves.

Use	Do not use
'people/learners with…' (eg diabetes)	the adjective as a noun, eg 'the disabled', 'a diabetic'
adjective, eg 'dyslexic person' or 'disabled person'	'persons'
'learners/students with learning difficulties and/or disabilities' (as a general term)	'people suffering from' or 'people afflicted with', etc (implying victim role) 'SLDD' or 'SEN' 'special educational needs'
'disabled person' (if the person prefers it and/or for variety)	'cripple(d)' 'invalid' 'handicap' (except in relation to golf, racing, etc)
'person with a learning difficulty' (in any education or training environment) or 'learning disability' (in health or social services context)	'SEN' or 'ESN' 'mentally handicapped' 'person with a mental age of…' 'retarded'
'wheelchair user'	'wheelchair bound'
'person with partial sight' 'blind person' 'partially sighted person'	'visually handicapped person'
'deaf' or 'deafened' 'hard of hearing' 'partially hearing' 'person with partial hearing'	'deaf and dumb' 'deaf mute'
'person without speech'	'dumb'
'hearing aid'	'deaf aid'
'person with mental health difficulties' 'a mental health service user' 'person with additional support needs in a learning context'	'psychiatrically disturbed person' 'mental patient' 'sufferer'
'child with special educational needs' (only in a school context)	'special needs student' 'special needs person' 'SEN pupil' 'trainee with special needs' 'person with special needs'
'person with autistic spectrum disorders'	'autistic people'
'toilet/facilities that are accessible'	'disabled toilets', etc (unless they are not working)
'personal assistants/enablers'	'carers'
'non-disabled' or 'not disabled'	'normal', which implies that disability is abnormal

Principles for working with learners with learning difficulties and disabilities

In recent years, many disabled people have tried to change the way in which disability is perceived. Put simply, this change constitutes a shift from seeing disability as an individual's intrinsic problem that is bound to cause difficulties, to seeing that it is often society which disables an individual by not adapting to the full range of physical and learning diversity.

For example, a deaf learner who lip-reads is not at such a disadvantage in a well-lit room, where the teacher faces the front and articulates clearly and where learning activities with peers are designed to maximise the use of visual cues. If these factors are not in place, however, the learner's impairment becomes a disability.

When working with learners with a learning difficulty or disability, it is important not to focus on the specific disability, but to follow certain generic principles.

- Focus on what makes people individuals, not on their conditions.
- Don't assume you know what the implications of a disability are; ask the learners themselves, and listen to what they say – they are the experts on the effects of their learning difficulty or disability.
- Understand the social dimension of disability – the implications of an impairment are the effects it is allowed to have in current circumstances, and these circumstances can change.
- Be aware of your own attitudes – it is often staff attitudes (eg patronising behaviour, pity or embarrassment) rather than an individual's disability that can create barriers.
- Foster a learning environment that encourages all participants to respond to the range of learning needs, aspirations and difficulties in the group in positive, frank, supportive and creative ways.

- Take time to observe what works for a particular learner and what does not, including observing his or her strengths as well as the things he or she finds difficult. There may also be emotional issues that create a barrier to learning; you will need to address these before learning can take place.
- Don't be afraid of trying things out. Sometimes it is necessary to explore different ways of working to find out which way is the most effective; this is all right as long as you and the learner work through the issues and decide on the strategy together.
- Ensure that the range of resources is appropriate and adequate to meet the needs of all learners.
- Include all learners fully in any group activity, unless they specifically wish not to be part of a group discussion. Be aware of how group dynamics or a disability can exclude an individual, for example not being able to see other learners in the group. Adopt appropriate strategies, such as everyone saying their name before making their point.
- Remember that some learners may need extra support in areas outside the classroom, for example in using the canteen or other facilities.
- Disabled learners may need to have individual arrangements for examination or assessment, for example extra time, a separate room, a reader or a scribe, or breaks in the middle. Make these arrangements in good time.
- Make sure your organisation is aware of the particular needs of people with disabilities when drawing up its health and safety procedures (eg having places of safety clearly marked for wheelchair users in case of a fire) and ensure that you know these procedures.
- If you are working with disabled learners who are also from a different minority ethnic group, do not forget that their ethnicity is an important aspect of their identity, as well as their disability.

Learning styles and learning difficulties and disabilities

While teaching learners according to their learning style has been shown to be helpful for all learners, it is *essential* for learners with learning difficulties and disabilities, who may be able to use only some approaches to learning. This gives learners fewer strategies and less flexibility in their learning. Some disabilities, such as dyslexia, may be partially defined by the learning style. For example, dyslexic learners are often weak in 'left-brained' language and sequential processing, so may rely on 'right-brained' approaches, such as imagery and holistic, non-sequential methods.

A learner's cognitive style is based on the differences between the way the two hemispheres of the brain process information. The left cerebral hemisphere specialises in verbal function; it is analytical and processes sequentially. The right hemisphere specialises in visual–spatial and holistic processing; it makes connections and sees patterns, rather than breaking things down.

Example

B is a dyslexic learner who could not remember the sequences in his computer class and was deemed by the class teacher to be 'unable to learn computing'. He was a very 'right-brained' learner, who found step-by-step thinking very difficult.

His dyslexia support tutor suggested that the class teacher first give B an overview, with a diagram of how the steps all fit together, and that this would enable him to learn the sequences. When this was done, B not only learnt all the sequences but was also able to help other learners having difficulties in learning them!

There are many models of learning styles, but the key elements affecting learning include:

- environmental factors, such as light, noise and space to move around
- perceptual preferences
- cognitive (right/left hemispheric) processing.

Learners also have other preferences in how they learn; for example, some learn better through working with their peers than working directly with a teacher.

According to the Dunn & Dunn model (see 'Resources', p66), there are four perceptual modalities, or ways of taking in information:

- *visual* – visual learners respond well to pictures and diagrams and often prefer to get information through reading, if reading is not too great a struggle and the content is of interest
- *auditory* – auditory learners learn best through listening
- *tactile* – tactile learners learn by touching or manipulating materials; they need to use 'real', three-dimensional resources
- *kinaesthetic* – kinaesthetic learners need to experience things for themselves, and to be actively engaged in doing things in order to learn.

Most learners have one or two perceptual preferences for taking in information, but many successful learners do not have strong preferences – they can learn in a variety of ways. Less traditionally successful learners often have more limited preferences; for example, many poor readers are highly tactile/kinaesthetic learners. They find auditory methods difficult and find reading easier if they are physically involved as they read, by highlighting and making notes. Learners with a low auditory preference do not respond well to verbal explanations and find it hard to listen for any length of time. Those with learning difficulties, sensory disabilities and dyslexia frequently have strong preferences, and may have additional problems in using one or more perceptual modes.

Example

S is a deaf learner whose first language is BSL. She sometimes uses a communicator in class, and lip-reads and uses speech. She is a visual learner and finds it much easier to take in information if she can have handouts to read before a class. She finds information on 'posters' around the room and diagrams and charts helpful. She likes to learn with her peers and participates actively in a small group in a quiet environment when others take turns to speak, so she can take in everything. She is also a kinaesthetic learner and finds doing role play and presentations good ways to express her ideas and synthesise her learning.

One model for looking at cognitive style in maths is the 'grasshopper' versus the 'inchworm'. The inchworm takes a step-by-step approach to solving problems; the grasshopper makes intuitive leaps, jumping over steps or coming at a problem from a different direction. The grasshoppers may have difficulty showing how they got the answer and may need help in describing their thinking processes.

Some learners have come to rely on particular approaches that do not suit their learning style, for example visual learners assuming they will get all the information they need by listening, or 'right-brained' learners trying to take linear notes. In these cases, teachers need to give clear explanations about the reasons for a change of approach.

They need to persuade and motivate learners to try new methods and to experiment with these. This is most effective when approaches are structured and regularly evaluated with learners, and when learners are encouraged to become aware of their own learning preferences.

A 'learning styles' approach can help with planning for both individuals and also groups. Introducing learning styles to learners through discussion, and offering a range of teaching approaches and learning strategies, can be a helpful starting point, as can the use of a questionnaire on learning styles. When drawing up individual learning plans and lesson plans, learners' style preferences can be taken into account. Learners can then be effectively involved in evaluating which methods work best for them.

Exploring different strategies can help learners understand that there are different ways of learning and enable them to share strategies, such as:

- spelling strategies (eg highlighting words within words)
- exam study strategies (eg making vocabulary cards or posters of key topics or listening to pre-recorded tapes)
- strategies for writing essays (eg scissors and paste, dictating into a tape recorder or using colour-coded index cards).

Learners will gain confidence in their own ability to learn if they are taught in a way that suits them. A 'learning styles' approach also helps learners become independent learners by helping them develop successful strategies. It is an effective way of creating a successful learning experience and counteracting previous failure. The essence of inclusive learning lies in offering learners opportunities to learn in the way that they learn best.

Specialist support and support staff

Learners with learning difficulties or disabilities may require specialist support. Details of the support which learners with specific disabilities may require can be found in Section 2 of this manual.

Types of specialist support

You may feel that a specialist assessment could be of benefit to learners who are not making satisfactory progress, for example:

- a learner who is dyslexic or may be dyslexic but has never been formally assessed
- a learner with learning difficulties who would benefit from an assessment by a specialist in this area
- a visually impaired learner who may require additional technical equipment.

Many colleges have in-house staff who can carry out such assessments. Other, smaller organisations may need to arrange or buy in external expertise.

Once the learner has been assessed, class teachers need to be aware of the recommendations made by the specialist assessor and look at the implications for classroom teaching.

Some learners may need additional support outside the class. For example, a dyslexic learner might benefit from sessions either in a small group or one to one with a member of staff who is trained in working with dyslexic learners. Other learners might require in-class support, for example:

- a one-to-one worker for a learner with learning difficulties
- an interpreter (who translates speech into British Sign Language (BSL) and vice versa) or a communicator (who acts as an interpreter but also helps translate written passages into language that can be understood by a BSL user) for a deaf learner
- a technician who can train a blind learner to use specialist voice-activated software.

Specialist in-house teachers or staff from local organisations or support services can also be used in other ways, particularly in staff development, for example in:

- conducting sessions on deaf awareness for teachers and other staff prior to the arrival of a deaf learner in the class
- conducting sessions on working with people with mental health difficulties
- providing disability or dyslexia support services for individual learners, carrying out awareness sessions and speaking to learners.

Working with support staff in the classroom

The role of support workers, who accompany some learners with disabilities, differs considerably. Learners with a physical or learning difficulty may have an individual support worker to help them with personal care needs or with the journey to and from class. Deaf learners could have the support of a sign language interpreter, a note-taker, a communicator or a lip-speaker.

The support worker is not there to teach; the teacher is responsible for the learning and progression of the learner. However, do not expect the support worker to be completely detached from the lesson. Even when they are not there to act in a more narrowly prescribed way (eg as an interpreter), they are there to facilitate the learner's access to the class. There needs to be a balance, ensuring that the support worker is supporting the learner's access but not doing the work for the learner. This needs to be reflected in the planning and delivery of learning.

In addition, it is important to:

- ensure that you always address the learner, not the support worker
- be clear about the specific role of the support worker
- remember that the support worker is there for that individual learner, not as a general class assistant
- recognise that in some cases, particularly with interpreters, the support worker needs to have notes and handouts in advance
- remember that interpreting is very tiring and interpreters need regular breaks (these do not necessarily mean stopping the lesson, but making use of times when the learner is doing activities that do not require the interpreter)
- leave enough time for the interpreter to translate for the learner.

Technology for learners with learning difficulties and disabilities

Technological advances have made an enormous difference to access to learning for learners with learning difficulties and disabilities. This is particularly true for learners who have physical or sensory impairments and also for those who are dyslexic or have learning difficulties. However, learners also need training in how to use technology effectively and effective use of technology hinges on detailed and effective assessment, followed up by reviews at appropriate stages. It also requires human support through enablers, technicians and scribes. The management of these staff is an essential part of planning learning programmes.

Here are two examples of how the access needs of many learners may be met by using the standard facilities on software programs:

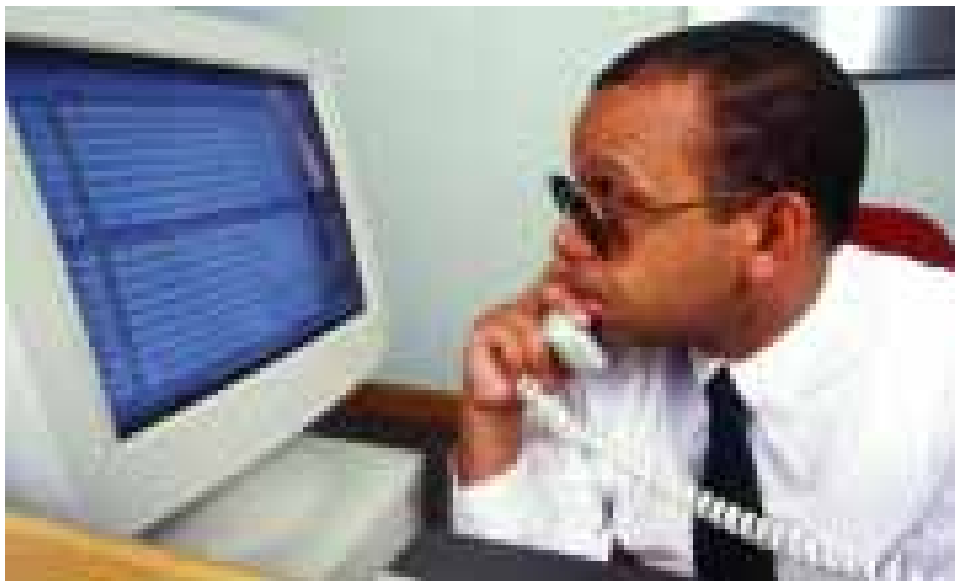
- Simply changing the background colour of the page, or the colour, size and style of font, may make text more readable. It may also be of great benefit to learners who have a visual impairment, who lack a dominant eye or who have some forms of dyslexia.
- Using the spellchecker or thesaurus may help those with weak spelling. The AutoCorrect facility enables learners, in effect, to type in a form of shorthand: the learner types the first few letters, and the program 'predicts' the rest. This means that learners can write without becoming exhausted if they have a physical impairment or degenerative condition that is tiring. An additional advantage of this facility for learners with literacy problems is that it may help them to develop literacy skills beyond spelling.

It is important to ensure that all websites and intranets are as accessible as possible (see 'Resources', p67). The World Wide Web Consortium (W3C) has a Web Accessibility Initiative (WAI) which, in coordination with organisations around the world, pursues accessibility of the web. Visit their website at: www.w3.org/WAI.

There are a number of ways of checking the level of accessibility of a website, for example 'Bobby', a tool for web-page authors developed by the Centre for Applied Special Technology (www.cast.org/bobby/), which helps to identify changes needed to improve the accessibility of web pages.

Assistive and enabling technology provides a means of access to literacy, and to learning in general. Assistive technology often requires the use of specialist equipment or programs or adaptations to standard hardware and software. Learners will usually have undergone a specialist assessment for assistive technology. Examples of assistive technology include:

- telecommunications and amplification for learners who are deaf and partially hearing
- computer-based programs to read and produce written text or text in alternative formats, such as Braille
- switches or other adaptations for those who have difficulty with manipulation and fine motor control.



Technology as a tool for learning can be very powerful in helping learners.

- Technology can be used to produce diagrams, charts and illustrations in tactile forms for learners who cannot access the visual form or who would benefit from multi-sensory approaches.
- Alternative and Augmentative Communication (AAC) with speech-output programs can be used to synthesise speech. This is particularly helpful to any learner who has difficulty in speaking, whether this is caused by physical or sensory impairment or a learning difficulty.
- Optical character recognition software programs such as Kurzweil 3000 and 1000 can, when used with a scanner, scan or read text to produce voice output or alternative formats such as Braille. This can benefit any learner who has difficulty in gaining access to written text, including those who have learning difficulties and those who are dyslexic, blind or partially sighted.

- The use of technology-based tools, such as Microsoft PowerPoint, electronic whiteboards, still images produced with a digital camera and digital media (streamed audio, video and animation), can greatly assist learners in visualising spatial concepts such as the properties of shapes or the build-up of fractional parts.

  Some learners, particularly younger learners, may be competent in using technology and may take delight in the status this gives to an area of work that they had previously found tedious and time-consuming. Writing on a computer can help to take away fear of failure and encourage people to become more adventurous in the words they use, because they know that mistakes can be easily rectified.

  The use of multimedia can support multi-sensory approaches and produce exciting and imaginative learning materials. For learners who have difficulty in reaching learning venues or who experience difficulties in interacting, technology-based learning can be crucial.

  However, technology is not a panacea for all learners. Some learners may experience difficulties in using technology. For example, older learners may never have used a computer before, and some may find it intimidating or difficult to remember how to use icons or sequence procedures to open programs. Learners with epilepsy need regular breaks from a computer screen. It is essential to be sensitive to situations like these when learners may experience difficulties in the use of technology.

Low-tech support

While high-tech solutions are immensely important in giving disabled learners greater access to learning, it is also important not to underestimate the value of low-tech support. Simple adaptations can often make all the difference to a particular learner. Examples include:

- appropriately coloured paper and thick black felt-tip pens for doing 'rough' work in maths for a visually impaired learner
- arranging seating at a different height
- raising the height of a computer
- placing cardboard at the sides of a screen to alleviate glare
- triangular pens or pens with rubber bands around them to form a grip-holder for dyslexic or dyspraxic learners with poor fine motor control
- printing handouts on coloured paper (ask learners for their preferred colour), using a sans serif font.

Further details on how technology can support particular learning difficulties and disabilities are included in Section 2.

Inclusive learning and access for all

Effective strategies for inclusiveness rely on identifying individual needs, planning to meet these and providing appropriate teaching, learning opportunities and support. These are not easy tasks, but the information in this manual about particular learning difficulties and disabilities – both their range and how they affect learners – along with the practical suggestions for meeting learners' needs will help teachers and other staff to be successful in meeting these.

To quote Tomlinson (FEFC 1996): 'teacher expectations and attitudes are as influential as technical equipment and individual ability'. However, creating learning opportunities for learners with learning difficulties and disabilities is not just a matter for individual teachers or those who provide learning support. It requires a whole-institution response to create an appropriate learning environment to maximise success and give access to all.

Section 2

Effects of learning difficulties and disabilities on learning

Particular disabilities affect individuals in different ways: generalising about them is impossible. Some conditions are permanent and stable; others fluctuate, with people having good days and bad days. Two people with the same disability can experience different effects. Conversely, the effects of one disability can be similar to the effects of another (eg deaf learners and learners who have autistic spectrum disorders may both experience difficulties in using abstract language). In many ways, it is more useful to look at a continuum of learning need, with individuals placed at different points on it.

There is thus a real risk that to describe and attempt to identify appropriate responses to learning difficulties and disabilities is, inadvertently, to encourage stereotyping. However, because there are so many myths about the implications of different disabilities, the following pages provide a brief overview of some of the main factors that might affect learning. You should nevertheless bear in mind the diversity of learner need when reading this section.

People who are deaf or partially hearing

Learners may be described as ‘deaf’, ‘deafened’ or ‘partially hearing’. Some learners may have been born deaf, others may have become deaf gradually or suddenly as a child or an adult. Most have some residual hearing. Only a very small proportion have no hearing at all.

There is an important difference between people who are prelingually deaf – deaf before learning to speak – and those who become deaf later in life. Many deaf or partially hearing people have speech that can be difficult to understand. This should in no way be taken as an indication of their proficiency in language or of their intelligence.

Impact on learning

Prelingually deaf people usually find it harder than others to acquire spoken and written language, as this is generally learnt through hearing the spoken word. As adults, their spoken and written language skills and their understanding of abstract concepts may be less well developed than those of other people, and sign language may be their first or preferred language. Deaf people can also have difficulty with the language of maths.

Many deaf people find the experience of working in a hearing setting isolating, because of the difficulties that communication poses for them. By contrast, a significant community of sign language users, and a teacher who signs, gives a signing learner direct access to the teacher and other learners, rather than asking them to work through an interpreter or communication support worker. However, there are also many deaf learners who want to study – and do succeed – on mainstream courses.

Ways of communicating

People may use speech, lip-reading, sign language, a hearing aid or a mixture of these in day-to-day communication. Different people use different methods, depending on personal preference, the degree of deafness and the individual's age at the onset of deafness. For example, people who are partially hearing, or who have become deaf later in life, may rely more heavily on lip-reading, while those who are prelingually deaf or profoundly deaf are more likely to prefer sign language.

Sign language

Many deaf people, although not all, use sign language to communicate. British Sign Language (BSL) is a language in its own right, with its own grammar, syntax and vocabulary. There are other sign languages with which learners may be familiar or which they may use, for example American Sign Language. If a learner uses sign language as his or her main method of communication, a trained sign language interpreter or communication support worker can interpret the speech of teachers and other people.

Standard English needs to be taught specifically, in a similar way to that in which English is taught to ESOL (English for speakers of other languages) or EAL (English as an additional language) learners. Deaf people whose first acquired language was standard English may use Sign Supported English (SSE), a form of visual English using BSL vocabulary. Learners who use sign language need to be taught both vocabulary and grammar that are unfamiliar to them, as might their sign language interpreters. Learners may produce pieces of writing that may appear ungrammatical but which are likely to be following the BSL grammatical structure. Such work is not indicative of a learning difficulty.

Lip-reading

Lip-reading is an art, not a science, relying on:

- a knowledge of the language
- an understanding of the context
- good lighting
- good acoustics and a quiet environment
- an awareness of lip-reading ambiguities
- clear speech, delivered at a natural, if slightly slower, pace.

Lip-reading is not straightforward: it is difficult or impossible to 'read' some sounds and some grammatical structures. Only 25% of words can be lip-read. Some sounds are harder to lip-read than others. Particularly difficult sounds are 't', 's' and 'k', with the result that word endings and inflections are often incorrectly written or missing, for example 'walk', 'walks', 'walked'. Prepositions are often idiomatic rather than logical, so the use of words that cannot be lip-read, such as 'on', 'in' and 'at', may need to be learnt by rule.

Partially hearing and deafened learners in particular may benefit from lip-reading classes, which can enable learners to develop coping strategies as well as lip-reading skills in a relaxed and supportive environment. Lip-readers may need to use a lip-speaker, in the same way that BSL signers use an interpreter/communication support worker.

Note-takers

Some people also use note-takers in addition to, or instead of, communication support. Some note-takers are trained in preparing notes for BSL users.

Hearing aids

Many deaf or partially hearing people use hearing aids even if they also use other means of communication. Hearing aids do not compensate for hearing loss in the way that spectacles can adjust sight deficiencies. They operate by amplifying sounds, but in doing so they amplify all sounds equally, including background noise, which can be problematic. Although hearing aids are becoming more sophisticated, it is important that teachers are aware of the effectiveness and limitations of the aid used by a learner and that they design learning activities with this in mind.

Telecommunications

Telecommunications are particularly helpful in a number of ways for learners who are deaf or partially hearing.

- A Minicom is a text phone that can be coupled to a conventional phone or plugged directly into a phone socket, but it can only communicate with other Minicom users if Typetalk, the national telephone relay service, is used.
- More and more deaf people are using fax as a means of communication.
- Email is now becoming more widespread and is used extensively by deaf people.
- Mobile phones are popular for text messages and some mobiles can send and receive faxes or access the internet.
- Conventional phones may be used with telecoil and/or amplifier. Most modern phones can give a clearer reception if the personal hearing aid is switched to the 'T' setting, and there are models that have a volume control for the receiver. Some deaf people rely on pagers to receive messages.

- The use of videoconferencing via the internet is increasing as bandwidth increases and the quality of images improves.

Teachers may also need to learn, or at least be aware of, the 'text' dictionary and the language of abbreviations used in telecommunications.

Amplification

A means of amplifying sound may help some deaf people. As with hearing aids, this provision does not have the same effect as glasses do on sight; it merely makes sounds louder and does little to clarify the distortion. There are several means of amplifying sounds, and the chosen method depends on the deaf person's preference. These include:

- *a personal hearing aid*, which is usually worn behind the ear and has a 'T' setting for use with loops and phones. It can also be linked to a radio-aid. Although it is discreet, it picks up all background noise indiscriminately and is almost useless over distances greater than 2 metres from the speaker. New digital personal hearing aids are now proving quite popular.
- *a radio hearing aid*, which requires the teacher to wear a transmitter and microphone. The learner wears the receiver linked by either a personal loop or direct input to the personal hearing aid. It may also be possible to link it to video and tape players, depending on the make and model. It gives priority to the teacher's voice/sound source, can operate at a distance and is battery powered; it can therefore be used on visits, but the batteries need to be recharged regularly, and it is not very discreet.
- *a conference microphone* linked to a radio aid, which can be useful for discussions or seminars. It needs to be on a padded surface so that it does not pick up unnecessary vibrations. It is good if the group is sitting in a circle for discussion, as it is multidirectional, but it can cause confusion if more than one person speaks at a time. Like the radio hearing aid, it is not discreet.
- *several varieties of loop*, including:

– a fixed loop, which is a permanent fixture hard-wired into the room

– a portable loop, which can be set up in any suitable room

– a personal loop, which is connected to a radio-aid and worn around the neck.

A loop cuts down on background noise, giving an advantage to the speaker's voice, but the teacher may be 'on a lead' if it is hard-wired. Loops can pick up interference from other loops, neon lights and computers in the building, and can also cut out other speakers' voices. All types of loop require the teacher or speaker to wear or use a microphone. The microphone may be connected to the system through a hard wire or by radio. Teachers and learners need to take care when moving around the room where there are trailing wires. Loops need to be checked regularly to ensure they are in working order, and the users need to remember to switch them on.

Technology

Deaf people who have difficulty with the English language may well, in common with other non-deaf learners, find spellcheckers, computer-based dictionaries and the thesaurus helpful to support them in written work. Certain operating systems, such as Microsoft Windows, allow the user to configure the set-up so that the borders of the windows flash to warn the user of an error, as an alternative to sound.

Approaches to consider

Do not assume that certain subject areas are impossible for deaf people. Evelyn Glennie, a world-famous percussionist who has been profoundly deaf since she was a child, 'hears' music through feeling vibrations.

Face the person at all times when speaking.
Speak clearly and encourage other learners to do the same.
Speak at a measured but natural speed. Speaking slowly distorts lip patterns, which become impossible to read.

Avoid startling a deaf person who is working:
approach them from the front or side.

Arrange lighting and seating so that everyone's face is well lit.
Avoid standing in front of a window or light, as this places your face in shadow.

Prepare notes in advance. People who depend on using their eyes to obtain information cannot take notes at the same time.

Do not talk and demonstrate at the same time.

Group work can be difficult for deaf people.
Get all learners in the habit of indicating when they are speaking.
Alternatively, gesture towards the person speaking.

In group work, repeat questions when giving answers.

Keep background noise to a minimum.

Be aware that loud noises can be distressing when amplified through a hearing aid.

Lip-reading is very tiring:
learners need to have periodic rests from lip-reading.

Unknown vocabulary is hard to lip-read.
Write vocabulary down and check that it is understood.

**It is difficult to lip-read if the context is not known.
The better a talk is structured, the better it is followed.
Handouts and overheads can be very helpful in complementing spoken instructions and descriptions, but provide these in advance, as learners cannot lip-read at the same time as reading them.**

**Take care not to speak while writing on a board or chart.
Learners cannot lip-read while your back is turned.**

Use as much visual information as possible, such as pictures, labels, diagrams and keywords written up on the board. Whiteboards can have a positive effect because they grab the attention of learners who are deaf and cast enough light for signing or lip-reading to be seen clearly, even from the back of the class.

Use short, clear statements and vocabulary, avoiding or explaining abstract concepts or jargon. If you find that you have not been understood, explain the same idea in a different way.

Repeat the beginning of an utterance, not just the end, and do not change the wording. Deaf and hearing-impaired people may 'tune in' late to the fact that they are being addressed and may miss the beginning.

**When working with interpreters, make time for them.
Always address the deaf person, not the interpreter.**

**Interpreting is tiring: do not speak too quickly.
Allow interpreters to have breaks.
There may be times when two interpreters are needed.**

Any videos or audio tapes that are to be used in the session should have written transcripts. Deaf learners will benefit if interpreters and communication support workers have access to these before the session and are given notes, handouts and scripts of videos in advance.

Write down statements wherever possible, but check that these have been understood. For sign language users, many of the techniques for teaching grammar to ESOL/EAL learners may be appropriate, especially on language functions or colloquialisms.

Make (and encourage learners to look for) direct and explicit comparisons between the different grammars and forms.

People who are blind or partially sighted

Some learners will have been born blind or with partial sight. A far larger number acquire visual impairment in later life. There are many myths around blindness. Many people assume that there is a distinct line between seeing clearly and seeing nothing at all. In fact, visual impairment covers a whole spectrum, from people who are only slightly affected to the very small proportion who are totally blind and cannot distinguish light from dark. And, of course, everybody experiences deteriorating eyesight with advancing age.

Impact on learning

An obvious impact of blindness or partial sight on learning is that learners cannot access standard 'written' text or numbers. Teachers need to ensure that suitable alternative formats are available. The larger the print size, the more time learners need to assimilate the content and meaning of the text.

Blind and partially sighted people are more dependent on their hearing for information gathering. People who have been blind since birth may have missed out on informal opportunities for learning to read, for example through the experience of signs and labels in everyday life. They will also have a conceptual framework for concepts such as distance, dimensions and scale that is not drawn from visual images. The basis of direct experience, on which people who have been blind since birth must build their understanding, will not include perspective drawings or images such as logos, famous faces or landmarks (eg Big Ben) that are taken from the concrete world and would be familiar to people who can see. They may also have missed out on gathering everyday practical information about the world around them, which sighted people take for granted. They may therefore need to be introduced to new situations in a practical, experiential manner before moving on to form concepts.

There is a particular difficulty in making tables, pictures, diagrams, graphs and maps accessible to partially sighted people. Work has been done in producing raised images, particularly for those who are Braille users (the Royal National Institute for the Blind (RNIB) produces information on this). It should be noted that tactile diagrams are often a sighted person's solution to a blind person's 'problem', and in many cases it is preferable to present information in an alternative format, for example using a model or a verbal description. When learners are using speech-based software, it is easier if information is given in a non-tabulated form, as speech recognition packages have difficulty identifying columns, boxes and other graphical conventions. Websites and intranets should follow the same conventions and should be 'Bobby' compliant (see 'Technology for learners with learning difficulties and disabilities', pp18–20 and 'Resources', p67).

Access to visual information

Most partially sighted adults have a preferred system of accessing information. The most common are:

- large print – either enlarged on paper or via a closed-circuit television providing screen magnification. Establish the optimum text size (in points) and select a clear sans serif font, with strong contrast, such as Arial. If print is larger than needed, learners will be dealing with unnecessarily cumbersome amounts of paper. Wherever possible, text should be reformatted onto A4, with page breaks at sensible points. Learners with some forms of visual impairment, such as tunnel vision, can see better if print is kept small
- colour of print and paper, such as black on white, black on yellow, white on black
- audio tape
- Braille
- Moon, a simplified tactile system based on letters of the alphabet, on Braille principles
- a personal computer, so that information can be accessed via a screen-reading program such as Jaws or textHELP, or a magnification program such as Supernova
- a combination of the systems listed above.

It is often assumed that all or many blind people use Braille. In fact, that is far from the case. Approximately 3% of people registered blind and partially sighted use Braille. People who have been blind since birth may have learnt Braille. However, learning Braille is a lengthy process, and those who have lost their sight later in life may feel that other options, such as Moon, are more suitable. People with tunnel vision, astigmatism and even some users of bifocals may have a problem holding in view enough text for fluent reading.

Technology

Technology has had a huge impact on the capacity of blind and partially sighted people to access information. As technology advances, the options for blind and partially sighted people continue to increase. Computers can be adapted to output information through a voice synthesiser, in print of any size, or in Braille. Some computers have a panel of raised dots, known as a 'soft Braille line', that provides a Braille version of what is displayed on screen. Keyboards can be adapted or given Braille keys. Optical character recognition software (OCRS) is most commonly used with a scanner (rather like a photocopier), on which you place printed materials. The printed material is read into the computer, which, with the appropriate hardware and software, delivers the output in a chosen format. A scanner is used in conjunction with a personal computer, but a Kurzweil reading machine carries out the whole process. Word search and other facilities that help to navigate or highlight texts are also useful for those who cannot scan or speed-read material.

Many people now use voice-recognition software, which allows them to dictate to the computer. Another common piece of technology employed by many Braille users is an electronic note-taking device, such as Braille 'n' Speak.

Closed-circuit television (CCTV) cameras can be used in a variety of learning situations, and smaller versions currently available are particularly useful. For instance, CCTV can be set up by a teacher to display a clear close-up view of a demonstration on a large screen. Miniaturised cameras (webcams) make this increasingly straightforward to set up. Signing can also be provided using CCTV and videoconferencing.

As technology advances, new products are coming onto the market all the time. The RNIB provides factsheets on all types of access technology, and website guidelines, and can help with assessment of equipment needs. They also have a Brailling Service that can translate text, grids and diagrams into Braille.

Approaches to consider

It is particularly important to ask partially sighted people what helps them most, because the support they require may be very different.

Some people may need extra help in understanding the layout of the classroom.

Adjust lighting for individuals. Generally good lighting is helpful, but for some learners too much light can be a hindrance, and glare from shiny surfaces can be very distracting. Many learners who are partially sighted are photophobic, that is they cannot tolerate bright light.

When talking, stand in a well-lit place, facing people, but not directly in front of a window, as your face will then be in shadow.

Produce materials in advance if they need to be put into Braille, modified print or onto tape.

Written materials are easier to decipher if they are clear and simple, on non-glossy paper and with strong contrast in colour and tone. A sans serif font such as Arial at 14 point size is a good starting point for clarity. Black print on yellow or white paper is usually clear, although learners may have individual preferences.

An uncluttered layout without too much on one page is helpful.

Avoid placing text over a background illustration or pattern.

Some people find it easier to use a tape recorder, as it may be the most efficient way for them to review materials and ideas. Arrangements should ensure the best possible sound reproduction.

Eliminate background noises as much as possible. Speak clearly.

Ask speakers to introduce themselves by name in group discussions.

Prepare handouts in advance so that people who are blind or partially sighted have diagrams, etc to hand.

Always read out what is written when using a whiteboard, overhead transparency or Microsoft PowerPoint presentation, and explain fully any diagrams, illustrations, acronyms or videos that you use.

Use black or blue pens – not red or orange – on a whiteboard. A screen can cause physical pain if it is too bright.

Blind and partially sighted people may need particular assessment or examination arrangements, such as a separate room, extra time, readers or scribes for written tests. Awarding bodies produce guidelines on assessment for people with learning difficulties and/or disabilities.

General points

Don't feel embarrassed about using phrases with a visual connotation (eg 'See you'). Such phrases have a meaning beyond their literal interpretation and many blind people use them.

If a learner brings a guide dog, make sure the learner has the opportunity to say how the dog should be treated in class. The dog is there on a job and should not be distracted.

Don't assume that blind people are unable to access certain areas of the curriculum. Many blind learners successfully take part in 'visual' or movement classes, as these examples illustrate:

- **One learner mixed her paints with a drop of different-smelling scents, so that she could distinguish the different colours.**
- **Another learner in a basic skills class took part in a session about geography by tracing her hands along a tactile map, while other learners looked at a map and talked through the different places and features.**

People who have mental health problems

There is widespread misunderstanding and prejudice about mental health, despite the fact that about one in five of the population experience some form of poor mental health at some stage in their lives. This prejudice in itself has an impact on learning. Depression, stress and anxiety are the most common types of mental illness. Learners with mental health problems may lack confidence and have low self-esteem despite the fact that they have the same full range of intellectual abilities as the population as a whole.

Impact on learning

Learners with mental ill health may experience greater anxieties about learning than other learners. Some may take medication that affects their concentration, memory and ability to participate. Short-term memory may be especially affected.

For many people their mental health may be variable, with good and bad days. This may affect their attendance, punctuality and behaviour. Some learners may be unable to engage in the learning process until relevant emotional issues are resolved. Progress will be variable, and regression can be common. Success can mean that some learners may be reluctant to 'move on'.

Assessment, particularly when it is formal (such as written tests), can be stressful and can cause the person to perform below standard.

Technology

Learners with mental health problems may have poor muscular control, which is sometimes related to drug therapy. Instead of a regular mouse, a roller ball with single click function and lock can be a great help. High-resolution PCs avoid distressing flickering; anti-glare screens give added protection.

Approaches to consider

Establish a good relationship and give plenty of encouragement. Deal sensitively with personal information and focus on what is needed to help the learner to learn.

Enable learners to have immediate successes in learning.

Some learners may experience changes in behaviour that may create an uncomfortable situation in the learning environment. It is better to allow learners to withdraw, if they wish to, rather than feel obliged to 'manage' the behaviour, which could lead to confrontation. This behaviour is more likely to be caused by external circumstances than by the current learning situation.

Allow sufficient time for learners to settle down and demonstrate their skills to the full.

Plan flexible programmes of learning to respond to variations in capacity to learn, attendance, etc.

Design learning sessions that include a variety of activities – particularly crucial for these learners.

When designing learning programmes and learning support, consider maximising access to 'catch-up' activities when sessions are missed. (This applies equally to all learners with attendance difficulties.)

Provide practice, reassurance and possibly extra time for formal assessments, and consider providing alternative assessment approaches, if appropriate.

Discussion of personal issues can occur in class. Be clear about the extent of your role and know when and how to refer on to other professionals, such as counsellors.

Encourage a supportive environment and activities that can accommodate individuals when they find social interaction problematic.

People with dyslexia and related difficulties

Dyslexia is most commonly described as a difficulty with processing written language. It is independent of intelligence and affects at least 10% of the population, 4% severely.

Dyslexic adults were often not identified at school and therefore may not know that they are dyslexic. Dyslexic adults are found across the curriculum and on courses at all levels. There may be particularly large numbers on some courses, such as engineering, art and design, or hairdressing, where dyslexic visual strengths may be helpful; but they will also be on academic courses. Many will also attend basic skills classes or will need basic skills support for academic or vocational courses or for work. Dyslexic people may be found in every trade and profession.

A range of other difficulties are associated with dyslexia:

- dysgraphia – handwriting difficulties
- dyspraxia – poor motor coordination or 'clumsiness'
- dyscalculia – difficulties with calculation/maths.

These are part of the dyslexic syndrome, but may in some cases function as a primary disability.

Bear in mind that learners with learning difficulties and sensory disabilities may also have dyslexic difficulties. Others may experience similar difficulties to dyslexic people. Those who are partially hearing, for example, may have similar problems to those with auditory processing difficulties: both rely on incomplete auditory information when reading and spelling.

Dyslexic learners are likely to have some or several of the following difficulties to differing degrees:

- discriminating or 'holding' sounds, which results in problems in decoding new words when reading, confusing or omitting sounds when spelling, word confusions or mispronunciations; it also affects their ability to take in spoken information
- recognising letters or familiar words when reading, or remembering the visual image of a word, the sequence of letters in spelling, or numbers and signs in maths

- a poor short-term or 'working' memory, or difficulty storing and retrieving linguistic information – this can affect their ability to write down or copy information, for example from the board
- poor motor integration, resulting in difficulties controlling a pen when writing, omitting or repeating letters when spelling
- directional confusions
- problems with sequencing and organisation
- a poor sense of time
- getting lost easily
- difficulty achieving 'automaticity' or fluency of skills.

Impact on learning

The kinds, patterns and levels of difficulty vary according to the type(s) of difficulty and the degree of impact within individual learning contexts.

Dyslexia affects the acquisition of basic skills in many ways; indeed, it is often partly defined as a difficulty in acquiring basic skills. Dyslexic learners may have a history of persistent problems in learning to read, write and/or spell, and sometimes with maths. However, dyslexia also affects other aspects of learning; for example, dyslexic learners have difficulties with order and organising, which may include their folders as well as their written work. Short-term memory problems mean that they may be unable to retain spoken information.

Dyslexic learners may commonly have experienced failure to learn by traditional methods, and frequently they will have had an experience of remedial classes that may have reinforced this sense of failure. It is therefore especially important to identify and understand their difficulties and use approaches that suit their learning style and give them an experience of success.

Dyslexic learners may have a range of difficulties that affect their learning in different ways. For instance, those with auditory processing difficulties may be able to develop a good sight vocabulary for reading but be unable to work out new words when reading. They often rely heavily on context as a compensatory strategy and need to have new vocabulary introduced to them in the text. Spelling is especially difficult for learners with auditory processing problems, as they are unable to discriminate, segment and manipulate sounds efficiently. They are often unable to attempt a word unless they have a visual image of it.

Other dyslexic adults may primarily experience visual processing difficulties, which may lead them to experience visual disturbances. For some, these take the form of problems in perceiving print accurately.

Print may appear to wobble, jump, blur, float out of sequence or drop off the page, causing acute visual stress and difficulties in forming stable images of words and letters. Most dyslexic adults have difficulties with word recognition when reading; this means that they frequently do not recognise familiar, even very familiar, words. Because of this, they rely on 'sounding out' words; but because they put so much attention into working out the words, they lose comprehension, so may have to read over and over again to make sense of what they read. They frequently misread and may also easily lose their place or skip a line without realising it.

A poor visual memory for words and letter sequences means that these learners often spell phonetically and are unable to tell when a word 'looks right'. They have great difficulties proofreading their work. They may also have directional confusions that affect their ability to tell the time on an analogue watch.

Visual processing difficulties often, but not always, go hand in hand with poor eye–hand coordination or general difficulties in integrating the motor, or movement, function. Learners with motor integration problems may have difficulties following a line of print. They may also have problems pronouncing multisyllabic words. They have difficulties, sometimes severe, with handwriting and organisation. The lack of automaticity in forming letters when writing by hand can often result in great difficulties in expressing themselves fluently. They have to concentrate so much on forming the letters that they may forget what they intend to say, or find the process so slow that they become discouraged and write very little.

Many dyslexic learners have some combination of auditory, visual and/or motor processing difficulties, and the severity of these difficulties will vary. Learners working at Entry level often have severe problems with all three types of difficulties, which intensifies their struggle to learn to read and write. Difficulties in developing automatic writing and spelling further increase problems, for example as spellings learnt are forgotten when the learner is concentrating on writing.

Some learners may have other related difficulties, such as severe language problems ('deep' dyslexia/dysphasia) or more severe motor problems (dyspraxia) or other cognitive difficulties. The more complex the range of difficulties, the more difficult it is for them to learn. Both teacher and learner must acknowledge this, so that both understand why learning requires so much extra effort and why it is important to learn in a different way.

The Adult Basic Skills Strategy Unit has commissioned work to research current theories and teaching approaches to dyslexia and dyscalculia. The outcome of the project will be web- and paper-based resources for teachers to use. The resources will explain and illustrate the different theories and approaches in a practical and teacher-friendly way. They will be available in March 2004.

Screening and diagnostic assessment

Unlike most learners with other learning difficulties and disabilities, dyslexic adults may not have had their dyslexia identified. In addition, they may have been labelled negatively at school, which often affects their self-esteem and confidence in their ability to learn. Consequently, the identification and understanding of their dyslexia is important for their learning.

Common indicators of dyslexia include:

- a history of difficulties in learning to read, even with extra help
- continuing problems with reading, eg working out new words, misreading, missing out words or lines, finding that the print blurs or 'dances', comprehension
- persistent difficulties with spelling, spellings that are far from the expected spelling, erratic spelling, being unable to remember spellings when trying to learn them
- miscopying, lots of crossing out, messy or laborious handwriting
- difficulties learning the alphabet, months of the year, multiplication tables, other rote learning
- problems remembering or 'mishearing' instructions, messages, numbers, facts
- difficulties telling the time on a clock face, knowing how long things take
- problems planning and organising, putting things in sequence, missing out steps.

See 'Resources', p65 for further information on some of the screening tests available.

The dyslexic learning style

Dyslexic people can often perform a range of complex tasks, such as solving complicated problems in electronics or design, yet cannot do the seemingly simple: learning to read and spell, order and organise writing, copy from the board, remember instructions, tell the time or find their way around. One way to look at this pattern of strengths and weaknesses is as a cognitive or learning 'style'. Many dyslexic people themselves experience their dyslexia not as a difficulty but as a *difference* – in how they think or learn.

Dyslexic learners' language processing and short-term memory difficulties cause them to rely heavily on meaning and understanding, which demands:

- a highly personalised approach to learning
- the learning process and conventions to be made explicit
- an understanding of 'how and why' in order to learn.

For these reasons it is particularly important for teachers to avoid making assumptions about why learners behave as they do, to take time to make sure that learners understand what they are supposed to do and why, and to help learners find for themselves the way in which they learn best.

Many, but not necessarily all, of the following characteristics of learning styles 'fit' most dyslexic learners. Dyslexic learners:

- think holistically ('all at once'), rather than step by step
- need to see the whole 'picture' first, before they can learn the steps or details
- are poor at remembering sequences but good at remembering patterns
- are good at seeing how lots of things are connected, how things work
- are poor at memorising, but remember well when they really understand something
- learn by experience, not from being told
- are often 'concrete', tactile learners
- are not good at learning or applying rules or generalisations but instead learn from the particular to the general
- need to make personal connections to remember things
- learn to read and write by having a personal interest in the subject matter
- learn better with the help of colour, humour, stories, images
- can often understand concepts in maths but have trouble with calculation processes or symbols and the language of maths.

Technology

Computers can minimise spelling and handwriting problems for dyslexic learners, allowing them to express themselves more freely and thus significantly improve the quality of their writing. Computers can also help enormously with the difficulties of planning and organising, reducing the frustration of writing.

For many learners, a keyboard makes a sufficient enough difference, as learners do not have to form the letters by hand. Specialist keyboards and mice are also available, as are larger, coloured key-tops that can be stuck onto the keys of any keyboard. Make sure that background colour, size, colour and type of font, and spacing between letters, are adjustable to suit individual needs. Arial, Comic Sans MS and Tahoma fonts are commonly preferred.

Other learners, however, will benefit from voice-recognition (speech) and reading software. This is especially useful for learners with severe reading and/or writing difficulties and for learners frustrated by long experience of failure. As well as giving the experience and pleasure

of 'reading' to those who have never had it, reading software can be effectively combined with voice-recognition technology, enabling a technological version of scribing/language experience which gives the learner more autonomy. Learners need to 'train' the software, but this can be done through introducing their own words and reading their own writing. Voice-recognition technology can also help in developing writing skills, such as written expression, sentence structure, punctuation and proofreading. Learners may need to try out software to see whether they need discrete or continuous speech software.

Other useful software includes spellcheckers, dictionaries and thesauruses, many of which have a speech facility.

Cassette recorders can be a great help with comprehension for those with poor word recognition who find it difficult to take in what they are reading. These can also be used to record important information, to record ideas when planning writing, or as a learning resource (eg for learning multiplication tables).

A 'reading pen' is especially useful for those with auditory processing problems. It scans and pronounces individual words and sentences and defines words. This is particularly helpful when new or unfamiliar words are the main problem.

Also available is software that adds speech output and has word-prediction and spell-check facilities. Word prediction helps develop language, as it is based on units of meaning. Other software can be used for mind mapping, drafting and making notes. The non-linear nature of mind maps is particularly helpful to those with a holistic, non-sequential learning style.

Approaches to consider

Avoid repeating approaches that have not worked in the past; use approaches that match learners' learning style.

Teach basic skills in a context, using learners' own written work and materials from a vocational area in which the learner is studying or working.

Help learners understand their learning style, their strengths and weaknesses, and how their dyslexia affects their learning.

Find teaching methods, approaches and materials that suit their learning style, such as using highlighters and scissors and paste to manipulate written materials.

Encourage learners to find their own strategies so that they become independent in their learning. For example, talk to learners about how they get around certain difficulties, or offer them memorising techniques. Look at mnemonics, visualising techniques, using tape recorders, or making materials such as posters or definition cards.

Dyslexic learners tend to have good long-term memories so help them make meaningful connections with new material.

Processing difficulties will not be overcome by practice, so avoid persisting with ineffective approaches, such as trying to get the learner to 'hear' the sounds or 'try harder to remember'.

When addressing weaknesses, such as poor comprehension in someone with poor (visual) word recognition, 'scaffold' the skill to be learnt by breaking down the task and look for compensating strategies, such as the use of tapes.

See technology not only as a tool for supporting written language skills but also as a potential 'way in' to developing the skill, or as an alternative means of access. Some people may never master the skills for spelling, but may in all other respects become fully literate.

Encourage learners to make visual representations of information, such as mind maps – they will then be able to recall this more easily.

When preparing handouts, pay attention to their layout and how easy they are to read, consider using sans serif fonts and avoid using type less than 12 point or putting too much information on a page.

Use colour and imagery to highlight key points or important details.

Offer a range of lined coloured paper for learners to write on (this may have to be photocopied or specially ordered). If learners have a preferred colour, ensure all handouts for them are printed on it.

Sometimes learners need to 'overlearn' (ie practise even after they seem to have learnt something) to help transfer learning into long-term memory.

Use multisensory approaches to develop strengths and to support weaknesses.

Make sure that those with poor visual–motor coordination have plenty of time to do both written and practical tasks. When appropriate, organise learning so they can achieve with others, for example group or paired work where another learner can take notes.

Support them in developing strategies to organise their folders and manage their time, for example by 'staging' assignments.

People with physical disabilities

Learners with physical disabilities have the same range of intellectual abilities as the population as a whole. Physical impairments can take many different forms. They can be temporary or permanent, fluctuating, stable or degenerative, and may affect parts of the body or the whole of it. The particular disability they have and its severity at least partly determines the way it affects them as learners. Learners may have experienced barriers to learning that relate to negative perceptions of disability and low expectations. They may also have missed out on vital stages of learning during their schooling, with consequent effects on their language acquisition and the development of literacy.

Access to the environment

Impact on learning

The initial barrier experienced by some people with physical disabilities is getting to the place of learning. For many, the inaccessibility of buildings is a problem, so there are important questions to ask.

- Is the learning environment accessible?
- Can learners get into the building?
- Can they get around when in the building?
- Is the learner comfortable?
- Is there somewhere where learners can rest or take breaks?
- Would a different chair be better?
- Is the table height appropriate?
- Is the learner able to reach the teaching and learning materials?

For some people with medical conditions, having to walk long distances can be tiring and can affect learning. Others who are unable to see well may experience difficulties in navigating their way around or locating learning materials or resources. There can be subtle but significant differences in impact.

Approaches to consider

Wherever possible, ensure that the preparatory work on access to the learning environment is undertaken before the learner starts the learning programme.

Think carefully about the location where the learning takes place in addition to any ongoing programme of improvements to access.

Plan the arrangement of, and adaptations to, furniture and learning resources.

Organise orientation sessions for individuals, to assist navigation around the building(s), materials and learning resources.

Structure learning sessions to incorporate short breaks, according to individual needs.

Use low-tech aids, such as cereal packets to cut out glare on a visual display unit, or thick books or telephone directories to adjust height.

Ensure access to personal, assistive technology.

Some learners may be able to access classes if they come with a support worker, for example a learner in a pottery class who can instruct the worker on how they want their design executed. Remember that the support worker is there to follow through the instructions of the learner.

Do not assume that a learner cannot participate in physical activities. There are many physically disabled dancers and athletes. Ask the learner.

Writing by hand

Impact on learning

Some people with physical disabilities have difficulties with producing handwritten work, because the fine motor control required inhibits the speed and quality of their handwriting.

Approaches to consider

Establish whether handwritten work is a significant feature of the programme requirements, and the extent to which handwriting is a priority for each person. For some individuals it may be very important for them to be able to improve their writing.

For note-taking, teach learners to make mind maps which require minimal writing or give them copies of your notes, or consider the option of using a tape recorder.

Look at different styles of pen to work out which works most effectively for them.

Liaise with the learner and previous learning providers to consider solutions.

Explore simple adaptations, such as a grip placed around a pen.

Assess, or refer individuals for assessment, for other writing communication aids, such as a specially adapted keyboard.

Apply to the validating body for examination or assessment adjustments, which may include using a scribe.

Perceptual difficulties

Learners with physical disabilities, neurological conditions or acquired brain injury may have perceptual difficulties. Perceptual difficulties may take different forms. Some learners have difficulty actually 'receiving information' by seeing or hearing, while others can see or hear but cannot 'process' the information they receive.

Impact on learning

Difficulties can arise with auditory, visual, spatial perception and/or processing. Visual–spatial perceptual difficulties can cause learners to have problems in finding their way around a building with a complicated layout. They can also lead to difficulties in reading and writing, for example in locating the correct place on the page, or in moving from left to right when reading or writing. These learners may have difficulties doing tasks that require precise tracking, particularly in using resources where information is displayed in tables or multiple-choice grids. These difficulties may also affect their ability to carry out practical tasks, especially those requiring locating objects in space or correctly placing objects in relation to one another.

Approaches to consider

Explore with the learner techniques that help to compensate for perceptual difficulties (eg discuss ways of isolating lines or blocks of information, possibly using windows cut out of card).

Provide clear visual guidelines (eg ensure there is a bold margin on the left side of the page, and highlight or embolden the first word of a sentence).

Use a frame or ruler to identify the line of text and to help move the eye to the next line.

Add small symbols to a page to indicate left and right.

Experiment with different ways of presenting information and organising activities to maximise understanding – in negotiation with the learner.

Clearly 'chunk' processes and information; 'signpost' important facts.

Provide small-step instructions.

Provide explicit, logical links using different colours, cue lines, diagrams and known symbols, when appropriate.

Use auditory back-up/support/alternatives.

Give learners plenty of time to do tasks requiring visual–spatial skills and ensure they have support where needed.

Speech difficulties

People with a neurological impairment, people who stammer or have other speech and language difficulties, along with some people who are deaf or partially hearing, may have difficulty in communicating through speech.

Impact on learning

Including learners with communication difficulties can present staff with certain challenges. There are some important principles to remember:

- People with communication difficulties may find group work challenging and stressful.
- People with communication difficulties are often thought to be far less able than they really are. Check your own response, to see whether you are automatically making assumptions about people's intelligence and ability because they are difficult to understand or their speech is very slow or slurred. The potential of these learners has often gone unrecognised.
- People often find the experience of listening to someone with a speech impairment embarrassing. This is not the speaker's problem. Make sure this does not lead you to avoid including the person in discussions.

Approaches to consider

Find out whether a learner who experiences communication difficulties has established a successful alternative system of communication, for example using:

- **an assistant to act as communicator**
- **a communication board (with letters and words on it)**
- **a computer with a speech synthesiser**
- **handwritten notes.**

Initially ask questions that only need a short answer. However, avoid questions that require only 'yes' or 'no' answers, as these can appear patronising.

Ask questions and allow people to demonstrate answers, for example answers to calculations.

Do not exclude a learner with a speech difficulty from any group activities. Manage the pace of the discussion, to ensure that other learners do not interrupt inappropriately.

Listen closely to what learners say; always respond to the content of what someone is saying, and do not be misled by the style of delivery.

When it is difficult to understand learners, keep calm, and take account of facial expressions and body language. Try to avoid guessing or completing sentences for them, unless learners want you to do this to speed communication. Always check with the learner.

Allow time for learners to make their contributions.

If you have not understood what someone has said, ask him or her to repeat it. Do not just nod and assume that it was not important, but repeat back to the learner what you think he or she has said, to confirm understanding.

A speech therapist can provide invaluable support. Some NHS Trusts provide support to learners.

The strategies outlined above are important not only for the teacher but also for all members of the class.

Memory difficulties

Memory difficulties may be one of the major issues faced by people who have acquired brain injury, in common with some dyslexic learners or those with learning difficulties. Responses need to relate directly and explicitly to individual learning goals, learning programmes and contexts. Teachers need to be aware of alternative ways of learning and assessing.

Impact on learning

Memory is fundamental to learning, so memory difficulties inevitably have an impact on learning. Learners with short-term memory difficulties may find it very hard to remember instructions, particularly multiple instructions, or to recall information previously learnt. Some learners may have 'fluctuating memories'. They may be able to complete a task in one session, but unable to do it in subsequent sessions. This causes difficulties when recording progress on the acquisition of skills. Memory also affects learners' ability to sequence. Some learners with long-term memory difficulties may not learn even after many repetitions and much practice and instead appear to 'start again' each time. It is important to recognise that this is due to 'perseveration', which is a specific memory difficulty. Memory difficulties do not correlate with a person's general intelligence, though learners with a poor long-term memory will have considerable problems with learning.

Approaches to consider

Work with learners on finding memory strategies or 'triggers' that are effective for them (eg visual cues or the initial sound of a word).

Break down learning into 'bite-sized chunks'.

Find alternatives where necessary, such as:

- **an alphabet card (where learners cannot remember alphabetical order)**
- **keywords and word banks**
- **Post-it notes and prompt cards for tasks.**

Tape-record important aspects of study.

Ask questions to help learners retrieve information; do not expect spontaneous recall.

Do not persist with memory-based activities and practice where these are not working.

Use cue cards and posters with, for example, multiplication tables, key definitions, abbreviations.

Encourage the habit of using other kinds of individualised aids, such as:

- **a diary**
- **personal dictionaries**
- **audio instructions on a personal stereo**
- **topic-based vocabulary lists**
- **number aids**
- **wallets containing personal information, such as address, next of kin.**

Use specialist support, not just to diagnose, explain or define where the difficulty lies, but also to build up a bank of learning strategies.

Technology

Many learners with physical disabilities are able to access standard PCs for reading, writing and other work via alternative and modified keyboards, on-screen and touch-screen keyboards, switch systems, tracker balls, roller balls with single-click function and lock, other specialist mice, screen-reading software and voice-input systems. Standard access options with Microsoft Windows enable learners to change screen colour, font size, font style and type of mouse pointer.

Furniture and low-tech devices are also a consideration, such as adjustable furniture, wrist rests, copyholders, glare guards and page turners. Portability of systems is important – it is helpful if systems are on trolleys. The application of wireless technology is particularly useful for this.

A large amount, and an increasing range, of assistive technology is available. For descriptions of assistive technology products and suppliers, see 'Resources', pp66–67. A welcome recent addition has been the increase in computer-based assessment materials.

When using technology with learners with physical disabilities, human support through enablers, technicians, scribes etc (and the management of these) is an essential issue to address when planning learning programmes.

People with learning difficulties

There is no precise dividing line between those with and those without learning difficulties. Everyone learns new skills, information and ideas at different rates and in a variety of ways.

About 20% of learners may need extra help with learning at some time. Some of these have specific learning difficulties, including dyslexia and dyspraxia (see 'People with dyslexia and related difficulties', p39). Others have a general cognitive learning difficulty that affects their ability to learn. In education, the terms currently used to describe learners with cognitive learning difficulties are 'profound and complex learning difficulties', 'severe learning difficulties' and 'moderate or mild learning difficulties'. In social services settings, the term 'learning disabilities' is used and people with more complex difficulties tend to be referred to as those with 'high support needs'.

Provision and programmes, particularly for people assessed as having mild or moderate learning difficulties, can include learners with wide-ranging, diverse and vastly different learning needs. Some of their difficulties may have been compounded by the isolated nature of non-inclusive approaches to education and may have resulted in institutionalisation. For these learners, the barriers to learning are more societal than 'intellectual'. Learning may be impeded by inappropriate or immature behaviour in response to these difficulties, dependency or acquiescence, or a strong tendency to cling to routines and familiar individuals. This may be accompanied by low expectations.

Impact on learning

Some teachers feel that people with a learning difficulty should only be taught in a specialist class for people with learning difficulties. This sentiment does not conform to DDA Part 4 and is unlikely to result in best practice.

There may be times, particularly when a person is new to adult learning, that they may wish to experience the security and specialist teaching available in a class specially designed for people with learning difficulties. However, individual people with learning difficulties themselves often say that they want to move away from a purely segregated environment and take part in the full range of classes.

Learners with learning difficulties often have 'spiky profiles' of learning – they may have considerable ability in certain areas but find others very hard. They are likely to take different lengths of time to gain certain skills. Teachers need to beware of making assumptions about learners with learning difficulties. Learners may also have a wide range of other disabilities or contributing factors that affect their learning, their strengths and weaknesses. This presents teachers with challenges in differentiating learning activities.

Learners with learning difficulties may also have experienced a considerable sense of failure. Responses that affect learning include: reluctance to try, or a fear of trying, anything new (because they might fail in it); the use of strategies that attempt to hide what they cannot do; frustration and anger. These learners may also have difficulties with:

- memory and retaining information
- conceptualising and understanding abstract concepts
- sequencing
- concentrating
- transferring skills.

Technology

People with learning difficulties may not benefit from technology as a means of accessing text in the way that, for example, some visually impaired people may. However, it can be a very powerful tool in helping them to improve their basic skills. Learners with learning difficulties, particularly those in the younger age range, may be very competent in using technology and may enjoy the kudos that technology gives to an area of work that may otherwise have been tedious and time-consuming for them. They may respond to, and be highly motivated by, certain software programs that make learning more interesting. Using a computer to write takes away the fear of making ineradicable mistakes and so helps learners to be more adventurous in their use of words. Symbol software, such as Widgit, is also very useful for some learners.

Teachers need to be very clear about the purpose and expected outcomes of activities, particularly when these are computer-based. Be explicit about the transference of computer-learnt skills to daily tasks.

Approaches to consider

Treat learners as adults and as individuals. Learners are easily demotivated if they feel they are repeating tasks that they have done endlessly at school.

Choose practical activities to develop concepts and skills.

Ascertain learners' interests and motivation, and build on these. If learning is difficult, the learner will not want to waste time on tasks that appear irrelevant to his or her purpose.

Find out what has worked and what has failed in learners' past learning experiences – there is no point in repeating strategies that clearly do not work.

Explain tasks clearly and unambiguously.
Check learners' understanding of the task by asking them to explain it back to you, in stages where necessary.

Where learners are having difficulties in retaining information, work with them to develop their own strategies for remembering things, and check that they use these strategies.

If they have an obvious difficulty with concentration, plan short learning activities that are relevant and enjoyable for them, and be prepared to vary activities as frequently as required.

Pace your input/interaction and teach in short chunks.
Avoid over-teaching.

Encourage learners to ask for help. Show that this is acceptable and is not a sign of failure.

Don't be too directive – some people with learning difficulties may be likely to say what they think you want to hear.

Limit the use of paper-based activities and look for alternatives wherever possible.

Use visual clues, such as graphics, to accompany texts.

Use learning support assistants sensitively, appropriately and creatively. Maximise learner independence, communication and negotiation. However, there may also be ways, with the learner's involvement, in which the support worker can provide important information on the best ways of working with a particular learner. They can also help to ensure that strategies learnt in class are reinforced in other areas of a person's life.

Be aware of the language you use and of that used by other class members, including non-verbal communication, and change these when appropriate.

Encourage learners to take responsibility for their own learning.

People with autistic spectrum disorders

Autistic spectrum disorders and Asperger's syndrome have only been recognised for the last 30 or 40 years, and there are considerable differences of opinion about them.

The term 'autistic spectrum disorders' is used to denote the varying effects that people may experience. Different subgroups within autistic spectrum disorders have been described:

- Asperger's syndrome
- high-functioning autism
- classical autism
- Kanner's syndrome.

The common criteria for a diagnosis of autism are based on a triad of impairments in:

- social interaction
- communication
- flexibility in thinking.

Some people with autistic spectrum disorders also have learning difficulties. Others are likely to have the same range of intellectual or cognitive skills as the general population. Some of these people have become very successful in a range of areas. People with autistic spectrum disorders have a number of characteristics that have an impact on the way in which they learn basic skills.

Impact on learning

People with autistic spectrum disorders and Asperger's syndrome can have particular difficulties with social interaction and with making friends. They may find it difficult to understand the social and cultural 'rules' that most people take for granted, and so may misinterpret the intentions, behaviour and conversation of others. They may, for example, find it very difficult to make appropriate small talk or know when to pause in the conversation to allow someone else to speak.

They may miss unspoken messages given through body language, facial expression or tone of voice that other people pick up subconsciously. They may make remarks that appear to be inappropriate to the context of the conversation, but make perfect sense to them. They may have difficulty accommodating to different audiences.

These learners are likely to use language literally, finding it difficult to understand metaphors, jokes or abstract concepts. Their difficulty with the abstract and their inflexibility in thinking can extend to other areas. People with autistic spectrum disorders are often reliant on fixed routines that are known and trusted and may find even small changes to routine disruptive or distressing. They may experience inflexible thinking, or display stereotypical and repetitive behaviour, such as wishing to sit in the same seat and becoming upset if they cannot. As social interaction is intrinsic to the way in which communication and speaking and listening skills are developed, people with autistic spectrum disorders may find learning these skills particularly challenging.

People with autistic spectrum disorders may be preoccupied with and very knowledgeable about a particular subject, and may spend hours studying everything about it or talking about it, regardless of the interest of the listener. This can be a source of conflict and annoyance for those around them.

A further difficulty experienced by people with autistic spectrum disorders concerns the way in which they receive information and respond to sensation. They may find touch or certain sounds or smells very disconcerting.

Approaches to consider

Provide learners with autistic spectrum disorders with a named person to whom they can go with any concerns.

Use literal language and be very precise about what you mean. These learners find abstract language and metaphors difficult.

Use carefully worded, unambiguous questions to elicit and test learning.

Provide extra time after group sessions to check that the content has been understood.

Be sensitive to the fact that some people find it very difficult to work in a group: do not force participation.

Establish routines for learners with autistic spectrum disorders. Discuss any changes to routine with them or their support worker.

Prepare learners to help them to accept change, such as change of room or change of teacher.

Encourage a supportive environment and consistent responses to inappropriate behaviour and comments in a group context.

Do not allow unusual behaviour to distract you from recognising ability. People on the autistic spectrum disorder can have very high abilities in certain areas of learning.

These learners may find it much easier to respond to written, rather than spoken, information.

Avoid background noises and changes in the environment, which may be very disturbing.

Resources

Resources

This list of resources is not exclusive, and inclusion does not imply recommendation.

Acts of Parliament

Learning and Skills Act 2000

Special Educational Needs and Disability Act 2001

Disability and Discrimination Act 2002

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Graded readers adapted from original classics and popular literature, primarily aimed at ESL/EFL learners, are available from a wide range of publishers.

For all BSA publications, phone 0870 600 2400

For all DfES publications, phone 0845 602 2260

For all QCA publications, phone 01787 884444

Other resources and materials

Dyslexia screening and diagnostic resources

Bangor Dyslexia Test
available from Learning Development Aids

Dyslexia Adult Screening Test (DAST)
available from the Psychological Corporation

Instines v.2.02
The Smart Dyslexia Screening
available from Artificial Relevance

Lucid Adult Dyslexia Screening (LADS)
available from Lucid Research Ltd

Quick Scan
available from Interactive Service Ltd

StudyScan
available from Pico Educational Systems Ltd www.zyworld.com/studyscan

Hardware and peripherals

Braille 'n' Speak
an electronic note taking device

Dictaphone
audio recording aids

Franklin Language Master
contains dictionary, thesaurus, grammar and spelling corrector

Minicom
a text phone with keyboard that can be coupled to a conventional phone or plugged directly into a phone socket

Quicktionary Reading Pen
scans and pronounces individual words and sentences and defines word

Typetalk
national BT/RNIB relay service sending minicom messages in speech and voice messages in text. It can send email and fax messages and also has a mobile version

Other learning materials

Alphabet arc
available from
Learning Development Aids (LDA)

BROGY
available from Taskmaster Ltd

Edith Norie Letter Case
available from
Helen Arkell Dyslexia Centre

Envelope guides, writing frames, raised line notepaper, signature guides
available from RNIB

Guess Who?
made by MB games.
Available from toy stores

Line trackers
available from Taskmaster

Literacy through Total Communication (LTC)
available through Bruce Bond

Magnetic poetry
available from major bookstores

Pizza party
available from LDA

Plastic letters
available from LDA

Tactile clocks and watches and talking clocks
available from RNIB

Resources / databases

Becta
Becta's Educational Software database has a wide range of software products and details: besd.becta.org.uk

TechDis database
provides an on-line resource of information about products and suppliers for those with disabilities, with information on assistive, adaptive and enabling technologies.
www.techdis.ac.uk/resources

www.learningstyles.net
for information on Dunn & Dunn model

Software

BSL CD-ROMS
available from RNID

Co: Writer
a predictive word-processing package that can be used to develop language by encouraging prediction based on units of meaning.
Available from Don Johnston

Draft: builder
for outlining and making notes.
Available form Don Johnston

Dragon Dictate
voice-recognition software.
Available from iANSYST Ltd and Words Worldwide Ltd

GAMZ Software
interesting ways of practising phonics.
Available from GAMZ

IBM Via Voice
speech-recognition software.
Generally available

Inclusive Writer
converts words to images and sound, acting as speech synthesiser.
Available from Inclusive Technology Ltd

Inspirations
mind-mapping software.
Available from Don Johnston

Jaws
screen-reading, speech-recognition software.
Available from Sight and Sound

Keystone
speech-output software, used in conjunction with Dragon Dictate.
Available from Words Worldwide Ltd

Kurzweil 3000 and 1000
optical character recognition software program, used with a scanner to scan or read text and produce voice output or alternative formats such as Braille.
Available from Sight and Sound

Slideshow Builder
presentations from Cambridge Training and Development

Start-to Finish Books
books in three formats: computer book, paperback book and audiocassette, age appropriate to 18.
Available from Don Johnston

Supernova
a magnification programme.
Available from Dolphin

TextHELP! Read and Write
adds speech output, word prediction and spell-check facility to most Microsoft Windows programs.
Available from textHELP Systems

Touch-type, Read and Spell
Available from P. Alexandre

Units of Sound Multimedia
a structured programme teaching reading and spelling, linking visual and auditory patterns.
Available from the Dyslexia Institute

Widgit
symbol software

Wordbar
contains words and phrase grids that learner can use to insert text and hear words

Wordswork
an interactive CD-ROM with both basic and advanced study skills, based on learning-styles approach.
Available from Alphabetics

Videos and television

Because…
produced by Dyspel Video (made by Dyslexic offenders).
Available from London Action Trust

Dyslexia: Symptoms
a video about Dyslexia, Manchester Adult Education Services.
Available from Alpha Training

Dyslexia Series:

Identifying Dyslexia: a diagnostic interview

On being Dyslexic: adults talking about dyslexia

Spelling to Learn: using a learning styles approach to spelling with dyslexic adults

London Language and Literacy Unit.
Available from Avanti

See Hear
BBC Education TV Magazine for deaf people

Web accessibility information

Accessibility of Online Materials Project (Aberdeen University)
Funded by the Scottish Enterprise Grampian. This project provides an interpretation of various web accessibility guidelines into easy-to-understand checklists and tips.
www.abdn.ac.uk/diss/ltu/accessibility

Bobby
The centre for Applied Special Technology (CAST) has developed Bobby, a tool for web page authors. It will help to identify changes needed to improve the accessibility of web pages.
www.cast.org/bobby

How to judge a website's accessibility level
TechDis article www.techdis.ac.uk/resources/dsloan01.htm

W3C (World Wide Web Consortium) WAI (Web Accessibility Initiative)
The W3C's Web Accessibility Initiative, in co-ordination with organisations around the world, pursues accessibility of the web through five primary areas of work: technology, guidelines, tools, education and outreach and research and development.
www.w3.org/WAI

Manufacturers and suppliers

Software

P. Alexandre
PO Box 535
Bromley, Kent BR1 2YF

Alphabetics Ltd
10 Beacon Hill, London *N7 9LY*
Tel and fax: 020 7687 1341
www.wordswork.co.uk

Crick Software Ltd
35 Charter Gate, Quarry Park Close
Moulton Park, Northampton NN3 6QB
Tel: 0845 121 1691
Fax: 01604 671692
Email: sales@cricksoft.com
www.cricksoft.com

Software manufacturers and suppliers *continued*

Dolphin Computer Access
Technology House
Blackpole Estate West
Worcester WR3 8TJ
Tel: 0845 130 5353
Fax: 01905 754559
Email: info@dolphink.co.uk
www.dolphink.co.uk

Don Johnston Inc
18 Claverdon Court, Calver Road
Winwick Quay, Warrington
Cheshire WA2 8QB
Tel: 01925 241642
www.donjohnston.com

Dyslexia Institute
133 Gresham Road, Staines TW18 2AJ
Tel: 01784 222300
Fax: 01784 222333
www.dyslexia-inst.org.uk

Edward Marcus Ltd
(low vision aids including
CTP coil VTM for visual dyslexia)
Chapel House, High Street
Tideswell SK17 8LB
Tel: 01298 871388
Fax: 01604 671692
Email: Specialneeds
@marcus.freeserve.co.uk
www.marcus.freeserve.co.uk

Franklin Electronic Publishers
Windmill Business Village
Brooklands Close, Sunbury-on-Thames
Middlesex TW16 7DY
Tel: 01932 891025

Gamz
25 Albert Park Road
Malvern, Worcestershire WR14 1HW
Tel and fax: 01684 562158
Email: support@gamzuk.com
www.gamzuk.com

IANSYST Ltd
(specialist in dyslexia –
hardware and software)
The White House, 72 Fen Road
Cambridge CB4 1UN
Tel: 01223 420101
www.dyslexic.com

Inclusive Technology Ltd
Gatehead Business Park
Delph New Road
Delph, Oldham OL3 5BX
Tel: 01457 819790
Fax: 01457 819799
Email: Inclusive@inclusive.co.uk
www.inclusive.co.uk

Learning Development Aids (LDA)
Ware House, Duke Street, Wisbech
Cambridgeshire PE13 2AE
Tel: 01945 463441
www.ldalearning.com

SEMERC (Granada Learning)
(also carries lower case
alphabetic keys caps)
Freepost NW, W565A
Manchester M3 9GX
Tel: 0161 829 2927
Fax: 0161 827 2966
www.semerc.com

Sight and Sound Technology
Qantel House, Anglia Way
Moulton Park, Northampton NN3 6JA
Tel: 01604 79807
www.sightandsound.co.uk

Techno-Vision Systems
(also carries large, bold upper-case
key pads)
76 Bunting Road Industrial Estate
Northampton
Tel: 01604 792777
www. techno-vision.co.uk

textHELP Systems Ltd
Enkalon Business Centre
25 Randalstown Road, Antrim
Co. Antrim BT41 4LJ
Tel: 028 9442 8105
Email: info@texthelp.com
www.texthelp.com

Widgit
124 Cambridge Science Park
Milton Road, Cambridge CB4 0ZS
Tel: 01223 425558
www.widgit.com

Words Worldwide Ltd
Ash House, Bell Villas, Ponteland
Newcastle upon Tyne NE20 9BE
Tel: 01661 860999
Fax: 01661 822777
Email: info@keyspell.com
www.keyspell.com

Other materials

Alpha Training
Chorlton Park Centre
Mauldeth Road West
Manchester M21 2SL

Helen Arkell Dyslexia Centre
Frensham, Farnham, Surrey GU10 3BW
Tel: 01252 792400
www.arkellcentre.org.uk

Interactive Services Ltd
Training Development Centre
Damastown Technology Park
Mulhuddart, Dublin 15
Tel: +353 (1) 811 1300
Fax: +353 (1) 811 1301
Email: info@interactiveservices.com
www.isl.ie

London Action Trust
88 Clapham Road, London SW9 0JT
Tel: 020 7793 0842

Lucid Research Ltd
3 Spencer Street, Beverley
E.Yorkshire HU17 9EL
Tel: 01482 882121
www.lucid-research.com

Smart Kids (UK) Ltd
(has a range of tactile/multi-sensory resources, several of which are appropriate for adults)
Tel: 01635 44037
www.smartkidscatalog.com

Taskmaster Ltd
Morris Road, Leicester LE2 6BR

Useful organisations/contacts

Adult Dyslexia Organisation (ADO)
336 Brixton Road, London SW9 7AA
Helpline: 020 7924 9559
Email: dyslexia.hq@dial.pipex.com
www.futurenet.co.uk/charity/ado/index.html

Avanti Books
(high interest reading books some with tapes)
8 Parsons Green, Boulton Road
Stevenage SG1 4QS
Tel: 01438 745876
Email: enquiries@avantibooks.com
www.avantibooks.com

Basic Skills Agency
Commonwealth House
1–19 Oxford Street
London WC1A 1NU
Tel: 020 7405 4017
www.basic-skills.co.uk

British Dyslexia Association
98 London Road, Reading RG1 5AU
Admin tel: 0118 966 2677
Tel: 0118 966 2677
Helpline: 0118 966 8271
Fax: 0118 935 1927
Email: admin
@bda-dyslexia.demon.co.uk
www.bda-dyslexia.org.uk

British Educational Communications and Technology Agency (Becta)
Milburn Hill Road, Science Park
Coventry CV4 7JJ
Tel: 024 7641 6994
Fax: 024 7641 1418
www.becta.org.uk

Cambridge Training and Development Ltd
Lincoln House, The Paddocks
347 Cherry Hinton Road
Cambridge CB1 8DH
Tel: 01223 470480
Fax: 01223 470481
Email: postcentre@ctad.co.uk
www.ctad.co.uk

Cerium Visual Technologies
(for list of specialist optometrists and a kit of overlays with instructions for screening)
Cerium Technology Park
Tenteren, Kent TN30 7DE
Tel: 01580 765211
www.ceriumvistech.co.uk

City Lit Centre for the Deaf
41 Tavistock Square
London WC1H 9EH
Tel: 020 7383 7624
Email: CSDP@citylit.ac.uk
www.citylit.ac.uk

Davis Dyslexia Association–UK
Sherwood Two
8a Upper High Street
Winchester SO23 8UT
Tel: 01962 820005
Email: info@centre-dyslexia.com
www.dyslexia.com

Useful organisations *continued*

Dyslexia Institute
133 Gresham Road, Staines TW18 2AJ
Tel: 01784 222300
Fax: 01784 222333
www.dyslexia-inst.org.uk

Gatehouse Publishing Charity
(reading books for dyslexic learners)
Hulme Adult Education Centre
Stetford Road, Manchester M15 5FQ

International Dyslexia Association
www.interdys.org

Institute of Optometry
56–62 Newington Causeway
London SE1 6DS
Tel: 020 7407 4183
www.ioo.org.uk

Irlen Centres UK
Email: enquiries@irlen.co.uk
www.irlen.co.uk

Learning and Skills Development Agency
Regent Arcade House
19–25 Argyll Street, London W1F 7LS
Tel: 020 7297 9000
Information Services: 020 7297 9144
Fax: 020 7297 9001
Email: enquiries@LSDA.org.uk
www.LSDA.org.uk

MENCAP
Head Office, 123 Golden Lane
London EC1Y 0RT
Tel: 0808 808 1111
Email: help@mencap.org.uk
www.mencap.org.uk

Mental Health Foundation
7th Floor, 83 Victoria Street
London SW1H 0HW
Information Line: 020 7802 0302
Email: mhf@mhf.org.uk
www.mentalhealth.org.uk

National Institute of Adult Continuing Education (NIACE)
21 De Montford Street
Leicester LE1 7GE
Tel: 0116 255 1451
www.niace.org.uk

National Blind Children's Society
NBCS House, Market Street
Highbridge, Somerset TA9 3BW
Tel: 01278 764 764
Fax: 01278 764 790
Email: enquiries@nbcs.org.uk
www.nbcs.org.uk

RNIB and the National Library for the Blind
105 Judd Street, London W1H 9NE
Tel: 020 7388 1266
www.rnib.org.uk

The Royal National Institute for the Blind (RNIB) provides fact sheets on all types of access technology and website guidelines, and can help with assessment of equipment needs. They also have a Braillling Service which can translate text and also grids and diagrams into Braille. RNIB and the National Library for the Blind are a source of Braille, Moon and taped books; they also distribute German film.

RNID
19–23 Featherstone Street
London EC1Y 8SL
Helpline: 0808 808 0123
Textphone: 0808 808 9000
Fax: 020 7296 8199
Email: informationline@rnid.org.uk
www.rnid.org.uk

SCOPE
Cerebral Palsy Helpline
PO BOX 833
Milton Keynes
Buckinghamshire MK12 5NY
Helpline: 0808 800 3333
Email: cphelpline@scope.org.uk
www.scope.org.uk

Skill: National Bureau for Students with Disabilities
Fourth Floor, Chapter House
18–20 Crucifix Lane
London SE1 3JW
Tel: 020 7450 0620
www.skill.org.uk

Further copies of this publication are available from:
DfES Publications,
PO Box 5050,
Sherwood Park, Annesley,
Nottingham NG15 0DJ

Copies can also be downloaded from the *Read Write Plus* website – www.dfes.gov.uk/readwriteplus – where further information is available on *Skills for Life*: the national strategy for improving adult literacy and numeracy skills

Tel: 0845 602 2260
Fax: 0845 603 3360
Email: dfes@prolog.uk.com
Minicom: 0845 605 5560

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