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5.1 Verbal communications with the student

To ensure that students appreciate the significance of what is being said to them - the subtleties of competing perspectives in a lecture theatre, or the health and safety arrangements in a workshop, or the detailed planning for a field trip - it is important for staff to ensure that strategies are in place to support the desired understanding. Given that the interface for this is likely to be the quality and degree of comprehensiveness of student note-taking, it is important to adopt teaching practices to facilitate this. Students with dyslexia may purchase assistive technology through the DSA for this purpose, and the support of a non-medical helper for note-taking and amanuensis.

Verbal communications: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<p>Processing auditory information.</p> <p>Developing reliable short term memory and recall.</p> <p>Sequencing information.</p>	<ul style="list-style-type: none"> • Ensure that the overall discourse allows for reiteration, clarification of new terms and regular pauses for reflection and to catch up. • Temper overall speed of delivery. • Provide clear examples and explanations. • Supply handouts and explanatory lists of new concepts and unfamiliar terms. • Utilise other media (DVD, OHP, PowerPoint, etc.) as dynamic means of reiteration.
<p>Multi-tasking (especially note-taking).</p> <p>Processing information under time constraints.</p>	<ul style="list-style-type: none"> • Be aware of the difficulties posed by multi-sensory tasking. • Encourage students to audio record instructions and to audio record sessions (equipment may be funded through the DSA). • Liaise with disability support service for a suitable notetaker (funded, where appropriate, through the DSA Non-Medical Helper Allowance). • Supplement verbal information with written or e-learning versions as introductions, summaries and <i>aide mémoires</i>. (See the guidance below entitled 5.9 Online learning.)

5.2 Written materials for the student

Despite advances in e-learning, the widespread use of hard-copy written material to inform HE study is still fundamental. Although the GEES disciplines have often been among the first to exploit the benefits of e-learning, paper-based communication remains important and much that is electronically delivered is ultimately downloaded in paper form. Making this means of communication effective and accessible to students with dyslexia is vitally important for their participation in lectures, tutorials, laboratories, practice-based learning, fieldwork, assessment and placement.

Written materials: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<p>Accurately comprehending written material.</p> <p>Scanning for information.</p> <p>Reading, analysing and summarising for acquisition, retention and revision.</p> <p>Reading freely without distractions and discomfort from visual perceptual distortions in the text.</p> <p>Reading for meaning in a distracting environment.</p> <p>Making accurate notes.</p> <p>Reading accurately at a competent rate.</p>	<ul style="list-style-type: none"> • Specialist terms need explaining through word lists and glossaries. • Style of writing should be clear and concise in all departmental publications including publicity, marketing course handbooks and learning materials. • Provide overviews, briefings and summaries for lectures, tutorials, practical and laboratory work. • Practical briefs need to be given to laboratory assistants and demonstrators to support the student. • Supply printed handouts and not hand-written ones. • Utilise a minimum 12 point font size. • Use Arial or other sans serif font. • Don't mix fonts. • Avoid too much underlining, capitals and italics. • Simplify dense blocks of text. • Use bullet points. • Leave wide spaces. • Left-justify text.

5.3 Written assignments, reports, fieldwork logs, etc.

Expectations for student submissions of written work are wide-ranging and form the foundation of the structure of the teaching and learning framework. Much of the timetable of the core curriculum is experienced by students as 'deadlines' for assessed work.

The submission of assessed written work is likely to be experienced by students with dyslexia as a stressful period. Academic peaks of this kind can exacerbate developmental dyslexia and students can find that their working memory becomes more inefficient, information processing more ineffective and written performance will decline. Teaching staff should consider recommending that the student might like to 'touch base' with a support tutor or pay a visit to the dyslexia/disability support service.

<p>Written assignments, reports, fieldwork logs: the challenges of dyslexia</p>	<p>Inclusive strategies and reasonable adjustments</p>
<p>Writing legibly at speed.</p> <p>Demonstrating understanding through written expression and fluency.</p> <p>Utilising spelling and grammar for Key Skills written communication.</p> <p>Proofreading successfully.</p> <p>Acquiring a subject-specific vocabulary.</p>	<ul style="list-style-type: none"> • Through the DSA, students may have access to a broad range of assistive technologies and study support, for example, a desktop or laptop computer for written work; text-to-speech software such as SpeakOut or TextHelp Read and Write for reading and writing accuracy; concept mapping software such as Inspiration and Mindful or mind mapping software like MindGenius and MindManager for planning and organisation; a dictaphone for recording verbal information; electronic thesaurus for developing subject specific terms; amanuensis. • Good quality, well presented handouts disseminated early, including word lists and glossaries of specialist terms. • Mark student work for content, making positive comments where appropriate. If you need to draw attention to spelling or grammatical errors, approach this sensitively.

5.5 Group work and collaboration

Across the GEES departments, group work has become a widely used form of learning activity. This applies both in campus-based learning and, of course, fieldwork. Many students talk openly of their concerns about the pressures of collaborating with their peers through group work, especially where an assessment grade will be awarded collectively. There are, inevitably, student fears about the standard of work, being perceived as a weak member of a work group or being allocated a designated task that is not playing to the student's strengths.

Students with dyslexia can experience all these anxieties, exacerbated by dyslexia-specific factors that impact on these kinds of social interaction (see below '5.6 Presentations and communications'). However, students with dyslexia do also have distinct advantages in this area. They often demonstrate good applied and problem solving skills and many have a proven track record of creative, lateral thinking, and therefore make excellent group work co-ordinators, particularly in brainstorming exercises and in identifying opportunities and strategies. They often have good verbal skills belied by their written contribution.

Group work and collaboration: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<p>Reluctance to reveal weaker areas, e.g. spelling, handwriting, inaccurate calculations.</p> <p>Problems with verbal fluency, processing language and saying the wrong thing.</p> <p>Increased anxiety caused by group work.</p> <p>Effects of low self-esteem and lack of confidence.</p> <p>Mis-cueing facial expressions and body language.</p> <p>Not wanting different treatment to others.</p> <p>Ensuring that students with dyslexia are not stigmatised.</p>	<ul style="list-style-type: none"> • Devise and disseminate clear written briefings for all students on the interpersonal dimensions of group work. • Use question and answer sessions to explore individual anxieties. • Promote staff awareness of the dyslexia profile as one of many learning styles with its own strengths as well as weaknesses. • Give students with dyslexia the opportunity to show possible strengths, e.g. their holistic and creative ideas, leadership, good visuo-spatial strengths and lateral thinking.

5.6 Presentations and communications

As part of the drive to promote key skills, many GEES departments have in recent years given increased priority to the teaching, practice and assessment of student presentations (Chalkley and Harwood, 1998). The GEES commitment to key skills is clearly evident in the QAA benchmarking statements. Most students express a level of anxiety about the activity of making a presentation to their peers, and similar anxieties are expressed about making oral interventions in lectures, seminar/tutorial settings and group work activities. Social interactions of these kinds may pose particular problems for students with dyslexia. This is the case both in terms of the determinacy of the primary and secondary factors of developmental dyslexia and how they might significantly adversely impact on a student's social skills.

The additional stress may exacerbate weaknesses in verbal fluency and language processing and lead to an unsuccessful social performance.

We take the notion of 'communication' here to also encapsulate the support that dyslexic students can receive from their peers, and the benefits that both groups receive from such dialogue.

Presentations and communications: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<p>Problems with verbal fluency, processing language and saying the wrong thing.</p> <p>The effects of a lack of confidence and low self-esteem.</p> <p>Increased anxiety occasioned by making a presentation.</p> <p>Effectively managing time.</p>	<ul style="list-style-type: none"> • Encourage students to explore multi-media means of presenting seminars. • Consider computer-based presentation packages such as PowerPoint with PowerTalk developed by Meru. • Offer support to practise presentation skills and timing. • Study skills support for better time management and recall skills may be purchased through the DSA. • Explore the possibilities of alternatives to presentations.

5.7 Fieldwork

Given the importance of fieldwork to GEES subject areas, and the resources brought to bear in preparing, undertaking and debriefing for fieldwork, there is a clear imperative for ensuring that these activities are successful experiences for dyslexic students. There are many potential obstacles to maximising this learning opportunity, but the pitfalls can be avoided by recognising the challenges faced by dyslexic students through careful, timely and strategic planning. The table below is based on an earlier volume by Chalkley, B. and Waterfield, J., (2001), which provides more detail on the design and delivery of fieldwork for dyslexic students.

Fieldwork: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
Before the field trip	
Defining a structure of support prior to the fieldwork activity.	<ul style="list-style-type: none"> • If disclosure is agreed, procedures for information exchange to be put in place between fieldwork staff, support services and students. • Early assessment of need for fieldwork to be part of the DSA assessment, which may fund a laptop or tablet PC, electronic organiser, personal digital assistant (PDA) or a non-medical helper. • Ensure guest lecturers understand dyslexia.
Ensuring that students with dyslexia are not stigmatised by others.	<ul style="list-style-type: none"> • Seek disability and dyslexia awareness training for all staff and students to help challenge myths. • Encourage peer mentoring.
<p>Short term memory, information processing and sequencing problems.</p> <p>Adopting a successful time management and organisation regime.</p>	<ul style="list-style-type: none"> • Arrangements for travel, clothing/ equipment and accommodation should be transparent. • Information can be available in a variety of formats (verbal, written and electronic). • Give information reminders prior to departure.

<p>Fieldwork: the challenges of dyslexia</p>	<p>Inclusive strategies and reasonable adjustments</p>
	<ul style="list-style-type: none"> • Students may use electronic organisers or PDAs purchased through the DSA. • Study skills support can be used to improve time management and recall skills (purchased through the DSA.)
<p>Accurately comprehending written material.</p> <p>Scanning for information.</p> <p>Reading, analysing and summarising.</p> <p>Reading freely without distractions and discomfort from visual perceptual distortions in the text.</p>	<ul style="list-style-type: none"> • Allow additional time for slow reading and processing. • Inform students of pre-field trip reading lists well in advance to allow for difficulties with short-term library loans. • Distribute course handbooks early. • Explain place names and field trip specific terms through word lists and glossaries. • Handouts must comply with the guidelines above '5.2 Written materials for the student'.
<p>Listening, observing and writing (especially note-taking) in the field.</p>	<ul style="list-style-type: none"> • Arrange study skills sessions on taking accurate notes in the field, organised through the DSA. • Use blue marker on a whiteboard, not black.
<p>During the field trip</p>	
<p>Understanding and remembering timetables, directions and maps.</p>	<ul style="list-style-type: none"> • Provide students with a daily itinerary. • Allow time to process information and ensure that it is in an accessible format. • Review student understanding.

Fieldwork: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
During the field trip (continued)	
<p>Reading for meaning in a distracting environment.</p> <p>Difficulty writing accurately at speed on location and the risk of making illegible notes.</p> <p>Pressures to record information leading to poor quality field observations and 'sense of place'.</p> <p>Verbalising experience from field notes which are an incomplete record.</p>	<ul style="list-style-type: none"> • Provide pre-field trip handouts of place names and glossaries of terms. • Negotiate with students on the need for a field notebook being kept in the field. • Use of an audio recording device or amanuensis purchased through the DSA. • Use of PDAs with a cut down version of Microsoft Office or a portable keyboard such as a Dana with Palm software, purchased through the DSA. A laptop/tablet PC with text-to-speech and mind mapping software, although suitable, may not be robust enough in the field. • Electronic thesaurus for use at base to improve the quality of field notes. • Encourage work between peers to share information and ideas. • Allow students time to improve notes.
<p>Not wanting to be treated differently to other students.</p> <p>Anxiety caused by group work and peer assessment.</p>	<ul style="list-style-type: none"> • Give students with dyslexia the opportunity to show possible strengths, e.g. their holistic creative ideas, leadership, good visuo-spatial strengths and lateral thinking. • Consider alternative assessment tasks.

5.9 Online learning

With an increasing emphasis being placed upon the advantages of e-learning in the HE sector, it is important that websites and university student portals are made accessible to students with dyslexia. It should also be recognised that e-learning as a medium must be accessible to all groups of disabled users and that design strategies followed to meet the needs of one group should not affect the quality of access of another. Guidelines on accessible website design can be found at the Techdis website: <www.techdis.ac.uk/seven/>.

Specific information concerning dyslexia and e-learning can be found at: <http://new.techdis.ac.uk/index.php?p=3_8_20051410031057>.

Overall, the principles behind the accessibility of e-learning are not dissimilar to those outlined in the guidance above '5.2 Written materials for the student'.

Online learning: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<p>Accurately comprehending written material.</p> <p>Scanning for information.</p> <p>Reading, analysing and summarising.</p> <p>Making accurate notes.</p> <p>Reading accurately at a competent rate.</p>	<ul style="list-style-type: none"> • Avoid large blocks of text and keep text page content to a minimum. • Use bullet points and summaries rather than dense prose. • Style of writing should be clear and concise. • Utilise minimum 12 point font size. • Use Arial or other Sans Serif font. • Don't mix fonts. • Avoid too much underlining, capitals and italics. • Leave wide spaces. • Left-justify text. • Give users the interactive option to change font, text size and background colour. • Ensure that text based learning content can be read by text-to-speech programs or are speech-enabled through browser technology such as BrowseAloud or ReadSpeaker.

5.10 Assessment

Over the past decade, the significant rise in the numbers of disabled students entering higher education, and particularly those with dyslexia, has resulted in escalating numbers now receiving special examination arrangements (extra time, separate rooms, use of a PC, amanuensis, etc.). The current arrangements of thousands of special provisions for examinations every academic year stretch resources, physical facilities and administration within the sector. In many institutions this is becoming an unmanageable situation, and so it is timely that compliance with the DDA Part 4 provides an opportunity to review current policy and practice.

The development of special arrangements as a solution to 'levelling the playing field' has not been based on rigorous research, and there is little to support the validity of the range of special examination arrangements currently deployed in this way. Indeed, anecdotal evidence is emerging that the current practice of offering additional time to dyslexic students may be, in part, counter-productive in that extending work time merely tires students who are prone to produce work of less quality when fatigued. It is undeniable, however, that these arrangements have become expedient as a 'bolt on' solution to existing practice. While it is clear that there will always be a need for some special arrangements to be made, many students with dyslexia may be better served by alternative assessments.

Although it is not the remit of this guidance to focus on alternative assessment modes, it is the opinion of the authors that alternative assessment strategies should be pursued to minimise the impact of disability on a student's performance. To test this conjecture, a 3-year HEFCE funded project entitled Staff-Student Partnerships for Assessment Change and Evaluation (SPACE), co-ordinated by the University of Plymouth with 8 regional partners, will be reporting its findings in Spring 2006. It is universally accepted that academic requirements and standards cannot be compromised and should be applied to all students whether or not they have a disability. However, alternative assessments should be developed to accommodate the learning styles of all students, including those with dyslexia. Otherwise, assessment results will reflect the impact of the dyslexia and prevent students acquiring independence in their learning.

Colleagues are encouraged to consider alternative assessments when evaluating the applicability of the following guidance. In this context, attention is also drawn to Appendix 1, 'Programme planning, approval and review: a checklist for change', which locates the issue of alternative assessments within this broader strategic context.

Assessment: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
Demonstrating a range of distinctive learning styles.	<ul style="list-style-type: none"> • Ensure that liaison with the disability/ dyslexia support service and the examinations office is effective for special arrangements. • Identify opportunities for students to demonstrate achievement of learning outcomes in alternative ways, such as through problem-based assessment, <i>viva voce</i> examinations, audio-visual material, additional coursework with flexible deadlines, etc. • Consider assessment methods used in other subjects that could be utilised or modified for GEES. • Evaluate the effectiveness of special examination arrangements and alternative assessments.
Processing auditory information.	<ul style="list-style-type: none"> • Ensure that all verbal information is clearly reiterated in plain language and backed up with a text version that adheres to the guidelines above '5.2 Written materials for the student'.
Reading accurately at a competent rate.	<ul style="list-style-type: none"> • Students may be able to purchase set books and key texts through the DSA. • Provide extended access to key texts otherwise restricted through short-term library loans.

<p>Assessment: the challenges of dyslexia</p>	<p>Inclusive strategies and reasonable adjustments</p>
<p>Accurately comprehending written material.</p> <p>Scanning for information.</p> <p>Reading, analysing and summarising.</p>	<ul style="list-style-type: none"> • Assessment questions must be worded in a clear and concise way. • Ensure that feedback on all assessed work is accessible. • Use print rather than joined-up handwriting, and verbal comments as reiteration.
<p>Legibly writing at speed.</p> <p>Demonstrating understanding through written expression and fluency.</p> <p>Utilising spelling and grammar for Key Skills written communication.</p> <p>Proofreading successfully.</p>	<ul style="list-style-type: none"> • Use of a PC. Assistive technologies such as text-to-speech and mind mapping software can be purchased through the DSA. • Try to mark student work for content, making positive comments where appropriate. If you need to draw attention to spelling or grammatical errors, approach this sensitively.
<p>Taking longer to achieve the objectives of written tasks with deadlines.</p> <p>Controlling and ordering the pace of learning and task completion.</p>	<ul style="list-style-type: none"> • Check that the range, loading and timetabling of assessment tasks is suitable. • Apply special arrangements to in-class assessments. • Consider flexible deadlines for assessed coursework. • Consider alternative assessment tasks.
<p>Stress and anxiety leading to poor performance.</p>	<ul style="list-style-type: none"> • Ensure that assessment submission arrangements are 'user friendly' and transparent. • Make sure that the student is aware of the tutorial and dyslexia support available to them.

6

Part A: Conclusion

Throughout this part of the guide we have sought to provide an accessible framework for GEES staff to embed good practice into course structure, planning and delivery to provide a more equitable experience for dyslexic students studying on GEES courses. By recognising the challenging elements of the dyslexic profile as a range of learning styles, some of the solutions for staff to consider in the pursuit of inclusive teaching and learning can be applied to meeting the broadest needs of the changing student population entering HE in the 21st century. By providing an approach that is less linear and more global, less about the individual deficit and more about valuing difference, we have attempted to promote the idea that inclusivity is borne out of embedded strategies and reasonable adjustments rather than 'ad hoc' and reactive responses to individual student needs.

Adopting this strategy allows the individual student to be first and foremost a student, rather than be ascribed a disabled identity in the learning, teaching and assessment environment. It will still remain necessary under the current funding structure for dyslexic students to receive their DSA funding, in acknowledgement of the additional time required for the input and output of new learning. This approach will contribute towards 'the levelling of the playing field' in a way that is systemic, consistent and without prejudice. Such considerations and activities will form part of the day-to-day work of academic staff, rather than be experienced as an additional burden of work for hard-pressed staff to meet the needs of targeted students. The current arrangements of support materials and special examination arrangements for some students place individual staff and departments in a vulnerable position when these are not met. The 'special' status of these arrangements positions the student recipients apart from their peers. In our experience, student feedback shows that dyslexic students find it difficult to have to seek 'special arrangements': it can create an unhealthy culture of envy amongst peers, especially when what is provided often just constitutes good practice for all.

Part B: Developing an inclusive curriculum
for students with hidden disabilities

7

What is meant by 'hidden disability'?

7.1 Introduction

The notions of 'hidden' or 'unseen' disabilities have become everyday terms, used for conferring meaning and categorising, and as part of the process of quantifying the presence of disabled people in Higher Education in the UK. In part these terms have derived their currency from the University and Colleges Admissions System (UCAS) codes for disability, special needs or medical conditions. UCAS Code 7 records 'a disability that cannot be seen', and this status is clarified through the examples of 'diabetes, epilepsy and heart conditions'. Established through common usage, these terms might also refer to any one of a broad range of medical conditions with their own specificity. The range of possibilities is immense. Unfortunately, utilising these concepts may give the impression of precision, the illusion that a body of knowledge, albeit complex, is somewhere at hand to codify all 'unseen' or 'hidden' disabilities and outline the consequences for teaching and learning. Unfortunately, this is not the case and these concepts conceal a Pandora's Box, for which this part of the guide is intended to be but a brief introduction.

According to the Higher Education Statistical Agency (HESA), 29.7% of the disabled student population, that is over 6,500 students, were recorded with 'an unseen disability' in the academic year 1999/2000. There are very many disabilities or medical conditions that may be described as 'unseen' or 'hidden', e.g. asthma, Crohn's Disease, Chronic Fatigue Syndrome (known as Myalgic Encephalitis or ME), diabetes and epilepsy, lung, kidney and heart conditions, musculoskeletal disorders (arthritis, back pain, etc.), Repetitive Strain Injury (RSI), and many, many more. Of course, when an individual is experiencing pain, a disabling attack, an episode, a seizure, or is performing poorly due to the effects of medication, etc., the condition and the consequences of what is 'unseen' and 'hidden' can be very visible. Equally significantly, there is evidence to suggest that 'hidden' disability may only become visible when the student feels under pressure to declare it. That may occur whilst on a course, in circumstances where the student's everyday work routines are likely to be disrupted by exceptional study pressures, e.g. in facing the demands of having to produce a substantial piece of writing such as a dissertation, or preparing for fieldwork. Disabled students may also face increased challenges in the social aspects of the curriculum and student life.

In the context of the UCAS codes, the imprecision of the concept of 'a disability that cannot be seen' is further amplified in practice. This is especially the

case when one considers that some of the physical disabilities that might be recorded under Code 4 ('use a wheelchair or have mobility difficulties'), could in early stages, or in remission, be regarded as 'unseen' or 'hidden'. This may be the case with disabilities such as Myasthenia Gravis, Motor Neurone Disease or Muscular Sclerosis, etc. Furthermore, where students do not wish to be specific about the nature of their disability, the concept of 'hidden' may be adopted to describe, for example, dyslexia (UCAS Code 1) or 'mental health difficulties' (UCAS Code 6). Hence this guide will not be addressing the full multiplicity of possible meanings and subjective deployments of the concept of 'hidden disabilities', and colleagues are directed to the other guides available in this series for guidance on issues related to mental health difficulties and physical impairment.

Aside from wishing to identify some 'common denominators' of what we call the hidden disability profile, Part B of this guide will concentrate on the 3 main hidden disabilities: asthma, diabetes and epilepsy. Although the guide is written with the GEES disciplines in mind, academics from many different subject backgrounds may well find its content of interest and value.

7.2 Disclosure of hidden disability

The confusion over definitions, which besets both students and higher education institutions, has a long term knock-on effect for the support frameworks available and ultimately student retention, achievement and progression. Failing to make a full and appropriate record of a disability at application stage may lead to a student failing to come forward for support, and there is some evidence that the catch-all concept of an 'unseen' or 'hidden' disability acts in this concealing way.

A small-scale research project underway amongst HEIs in the South West Region, co-ordinated by the University of Plymouth, has sought to explore disabled student perceptions of teaching, learning and assessment activities. Sampling the views of 100 students in 2004, 7% of the sample declared a 'hidden disability,' a much smaller percentage than the national figure previously recorded by HESA for 1999/2000 (although year-on-year fluctuations show a general decline prior to this). Significantly, though, 4 students out of 7 (57%) indicated that they hadn't sought special arrangements, and the other qualitative measures adduced through the survey indicate moderate to serious negative effects on performance across a range of activities and causal factors, perhaps in part as a consequence. For example, students with hidden disabilities recorded the following perceptions:

Number of students from a total of 7	Recorded as having a moderate to serious effect on performance
4	Lengthy periods of writing
4	Working under test conditions
3	Giving a presentation
3	Pain affecting performance
5	Fluctuations in medical condition
3	Medication
4	Distraction
3	Feelings of panic
4	Sitting for long periods
4	Noise

Source: Staff-Student Partnership for Assessment Change and Evaluation (SPACE), University of Plymouth, HEFCE (2002-2005), first phase report, unpublished.

The discrepancy between the reluctance to seek special support and the moderate to serious effects recorded by the students with hidden disabilities highlights the importance of ensuring that mechanisms are in place to encourage disclosure and explain its advantageous consequences to students.

Further qualitative evidence is to be found in Riddell *et al.*, (2004). Their summary of student case studies indicates that of the 7 students interviewed who might conceivably be described as having a 'hidden disability', there was almost unanimity on the issue of self perception. There was a palpable reluctance to adopt a disabled identity. Students preferred to be seen as, for example, 'ill due to fluctuations in condition' (heart condition), 'mildly disabled' (chronic pain syndrome), 'no(t) associated with disabled identity' (arthritis), 'does not consider herself as disabled' (Lupus).

The evidence from these two contemporaneous qualitative surveys shows clearly the importance of procedures to encourage full and frank disclosure, amongst a group of students who may, only very reluctantly, have ticked the UCAS Code 7 box indicating 'a disability that cannot be seen'. There is almost

the suggestion here that for many, the 'unseen' nature of the disability is how the student wishes their circumstances to remain, recorded statistically as a sort of candour, but perhaps not really divulged or explored. Unfortunately, the corollary of this may be a mismatch between the needs of the student and the intentions of the HEI addressing the requirements of DDA part 4. However, changed circumstances may have unforeseen outcomes at various times through the student's course. There need to be opportunities and transparent mechanisms to address these.

The importance of self-disclosure for students with 'a disability that cannot be seen' should not be underestimated for GEES departments. Although the GEES disciplines have a reputation for close and supportive staff/student relationships (assisted by their emphasis on field and practical work), this by itself will by no means guarantee high disclosure rates. Thus the value of this guide on the profile of students who may correctly be defined as having a hidden disability, is only as good as the capacity of the HEI to encourage its applicants and students to declare their disability in an atmosphere of mutual candour. This should, of course, include adequate opportunity to be specific about what the hidden disability actually is, how it impacts on the individual's learning style, study support needs and coping strategies. With this in hand, GEES departments can ensure that all the components of teaching and learning are appropriate for students with hidden disabilities, their learning and achievement, as well as their health and safety. However, there may be circumstances in which it would be unwise for some students with hidden disabilities to proceed with some activities such as lone fieldwork.

The advantages of disclosing hidden disability and the procedures regarding confidentiality must be explained to students. The Data Protection Act of 1998 classifies information relating to the student's disability as sensitive data. Thus, staff must seek the student's permission before passing any information to other staff. Information derived from medical reports or support plan documents should be kept in a confidential manner and the student will need to be informed about who is in receipt of the information.

8 Specific guidance on students with hidden disabilities

For the purposes of making a contribution to the development of teaching and learning strategies particularly in the GEES subject areas, the authors have decided to limit the scope of this guide in two ways. Firstly, we aim to provide some general guidance on the key challenges or common denominators of hidden disability, and how they may be addressed in GEES departments. Secondly, we will be providing some discrete guidance targeting the three main hidden disability profiles of students in higher education in the UK. These are asthma, diabetes and epilepsy. As indicated previously, much of this guidance will be relevant not only to GEES academic and support staff, but also to colleagues working in many other disciplines.

Each of the 4 following sub-sections will be introduced through a short background briefing on the disability, highlighting a few key points for consideration, and each briefing will then be followed by a simple table of two columns, using a similar structure to that used in Part A, section 5 of this Guide. The left hand column will list the challenges of the particular hidden disability for GEES teaching and learning and the right hand column will suggest the inclusive strategies and 'reasonable adjustments' that can be made to address the range of student learning styles.

The challenges of hidden disability identified in the left-hand column and the inclusive strategies and reasonable adjustments under DDA Part 4 highlighted in the right-hand column, are not intended to be exhaustively applied across the columns. As in Part A, any of the solutions in the right-hand column may provide a more inclusive experience for students whose disability profile includes items identified in the left-hand column. The solutions may also support a more appropriate climate for learning for students not in the 'hidden disabilities' grouping – those who may have different educational experiences, family commitments alongside study, lack of confidence because English is a second or third language etc. All students are, after all, individuals and this guide is intended to be broadly useful rather than prescriptive. There is necessarily a degree of repetition in how both the challenges and the inclusive strategies are addressed, simply because so many of the inclusive strategies provide broad solutions to a range of needs, and the hidden disabilities have factors in common.

Again, it is felt by the authors that the priority in guidance of this kind, addressing as it does the staff development needs of busy academic colleagues, is to write a light prose, with an easy-to-use set of tables focusing upon discrete

key topics. To this end, we hope that each table is a stand-alone document that can be used by individual members of staff as an *aide mémoire* on a day-to-day basis, or more generally as a training resource for staff development in inclusive practice.

It is the authors' belief that much of the information presented as 'inclusive strategies and reasonable adjustments' might be understood in its broadest context as constituting good practice for a broad range of students, disabled and non-disabled alike, with a full range of learning styles and learning experiences.

8.1 General guidance on the hidden disability profile

The difficulties posed through using the concepts of 'hidden' or 'unseen' disabilities have already been alluded to at the beginning of Part B of this guide. As general definitions of disability, they are likely to conceal more than in practice they reveal. Consequently, academic staff in GEES departments are urged to ascertain the nature of the hidden disability or medical condition in order to have an understanding of the challenges it is likely to pose.

Considering disability in a critical cultural sense has led to a necessary caution about the importance of construing disability in a social rather than a medical context. It is nonetheless important, therefore, to remind ourselves of this despite the fact that we are often dealing here with medical conditions and medical treatments. Our responsibility is to ensure that we are contributing towards dismantling disabling policies, procedures and environments.

At its simplest level, the framework for understanding the learning profile of a student with a hidden disability is likely to hinge on two main issues for the student: the impact of the disability/medical condition on the individual and the consequences of the medication for that individual. Both of these factors will affect learning styles and student performance, and should be considered when exploring frameworks for teaching, learning and assessment in a GEES context, and of course, in relation to health and safety.

For information sharing purposes, it may be necessary to organise a meeting including a disability adviser and a medical specialist, if the student is in agreement. A student having a hidden disability or medical condition which is unseen and which is normally self-managed without seeking assistance from those around them, may feel vulnerable when facing the necessity of self-disclosure. Sympathetic staff understanding of this reticence is the first step, and having identified, well in advance, any students facing such medical difficulties, an action plan needs to be agreed to manage outcomes effectively. This is especially important prior to fieldwork (Chalkley and Waterfield, 2001).

The parameters for this initial discussion should consider the student's previous strategies for managing both their hidden disability and their learning. This might include a discussion of the impact of medication routines, the side effects of medication, periods of absence and the previous learning support strategies utilised by the student, including any assistive technologies. Learning support strategies including the use of assistive technologies, such as audio recorders and personal computers, may be available through the Disabled Students' Allowances (DSA), if supported by a professional assessment of need. Guidance on this can be found in Appendix 3: The Disabled Students' Allowances (DSA). It is important, however, to remember the portability dimension of any additional equipment and the possible need for help in this regard. In the words of one student: 'I find a personal helper very useful as the equipment is very heavy for me'.

Colleagues will need to bring to such meetings a clear understanding of the health and safety responsibilities of their HEI and how these are embedded within the GEES department. All staff should have basic first aid training, a general awareness of the possible implications of what might be called the 'common denominators' of hidden disability profile, and brief themselves on the individuals they have responsibility for. Not being medical experts, academic staff should find out how to obtain expert medical help, especially in fieldwork locations. Careful planning and forethought at an early stage can be vital in preventing problems from turning into emergencies. This is also particularly relevant when students are on placements. Work-based learning (of various durations) has become a more common feature in the GEES curricula in recent years and in this context it is important that students, host organisations and relevant GEES staff are fully cognisant of how any problems should be handled during a placement experience. In some situations (both on campus and on field or placement work) pairing students with a 'buddy' may represent a partial solution, although no student should be expected to be responsible for the health and safety of another. Ultimately, the health and safety policy of the HEI is paramount in this respect.

Colleagues should be mindful of how the hidden disability is likely to impinge on the student's experience of all the elements of the GEES teaching and learning programme, e.g. lectures, practice-based learning, fieldwork and assessment. Where 'reasonable adjustments' are necessary for equality of opportunity and learning experience under the DDA Part 4, it may be the case that the student will benefit from an imaginative alternative assessment mode to replace a more traditionalist approach. For example, in the words of one student: 'written examinations are a real stumbling block with the visual disturbances I get occasionally – stress seems to provoke them'. In this case perhaps use of an oral examination could be an appropriate alternative. Enabling the student to take an exam in a separate room can also on occasions be helpful. But

it is important that the room is carefully chosen. 'The single room allocated in my last exam was completely inappropriate. It was a very hot day and I had to have a window open, students outside were playing loud music and revving cars and it was right next to the accommodation block.' These student comments indicate that simply finding an alternative space is, of itself, not necessarily a sufficient answer.

Key points:

1. Be aware of the impact of the hidden disability or medical condition on the individual student.
2. Be aware also of the parameters of DSA and what the awards might fund to support the student. See Appendix 3: The Disabled Students' Allowances (DSA).
3. Organise a meeting with the student involving relevant staff.
4. Draw up an action plan covering health and safety and curriculum access issues to meet the requirements of DDA Part 4.
5. Evaluate and monitor outcomes for future planning and to build up departmental expertise on meeting the needs of students with hidden disabilities.

8.2 Making 'reasonable adjustments' for students with hidden disabilities

<p>The challenges of hidden disabilities for GEES teaching and learning</p>	<p>Inclusive strategies and reasonable adjustments</p>
<p>The concepts of hidden or unseen disability are only broad concepts.</p>	<ul style="list-style-type: none"> • Obtain background information on the specific characteristics of the hidden disability. • Subject to the issue of consent, arrange a meeting with the student and other relevant colleagues to discuss the impact of the disability on the individual. • Be aware of the support available through the DSA (see Appendix 3: The Disabled Students' Allowances (DSA)).
<p>Transition to life in HE may provide the trigger for symptoms, increase stress and/or disrupt the managing of symptoms.</p>	<ul style="list-style-type: none"> • Ensure that staff are properly briefed to intervene. • Consider operating a student 'buddy' system. • Ensure that all activities are carefully explained and written notes are supplied. • Provide early notification of assignment cut-off dates and flexible deadlines. • Review assessment timetables to relieve assessment 'bottlenecks,' especially at the end of modules when revision is also taking place. • Provide an action plan for specific activities such as fieldwork. • Consider alternative assessment tasks.
<p>Medication may be required to be taken throughout the day.</p>	<ul style="list-style-type: none"> • Be flexible about necessary student absences and reiterate key points missed both orally and in written/electronic forms. • Refrigeration facilities may be required for storing medicines during field trips, etc.

The challenges of hidden disabilities for GEES teaching and learning	Inclusive strategies and reasonable adjustments
Medication may lead to lapses in concentration and poor memory.	<ul style="list-style-type: none"> • Produce clear <i>aide mémoires</i> for planning field trips and other practical activities. • Ensure that lectures, seminars and fieldwork planning activities are supported with good quality handouts and electronic versions.
<p>Medication affects the student's stamina and sleep patterns.</p> <p>Medication may lead to frequent use of cloakroom facilities.</p>	<ul style="list-style-type: none"> • Consider the implications when organising group work tasks, fieldwork activities and travel arrangements. • Explore virtual fieldwork options and e-learning formats. • Allow additional time to achieve tasks and be flexible with deadlines.
Student has difficulty with task completion and the meeting of deadlines.	<ul style="list-style-type: none"> • Allow additional time to achieve tasks and be flexible with deadlines. • Consider alternative assessment activities.
<p>Student has week-long absences.</p> <p>Has difficulty taking notes and producing assessed work.</p>	<ul style="list-style-type: none"> • Ensure that lectures, seminars and fieldwork planning activities are supported with good quality handouts and electronic versions. • Take a sympathetic approach to 'late' submissions. • With student consent, consider the arrangement of a student 'buddy'. • The use of assistive technologies in the home may be required, e.g. a personal computer may be funded through DSA (see Appendix 3: The Disabled Students' Allowances (DSA)).

The challenges of hidden disabilities for GEES teaching and learning	Inclusive strategies and reasonable adjustments
Students may be anxious about group work, collaboration and presentations.	<ul style="list-style-type: none">• Disseminate clear written briefings for all students on the interpersonal dimensions of group work.• Use question and answer sessions to explore individual anxieties.• Staff should facilitate dialogue within the student group to ensure that the allocation of tasks is equitable and values student diversity.• Explore alternatives to presentations.
Not wanting to be treated differently to other students.	<ul style="list-style-type: none">• Do opportunities exist for students to receive disability awareness training about equality of opportunity as part of Personal Development Planning?

8.3 Asthma

Asthma is a chronic lung condition characterised by difficulty in breathing. There are estimated to be up to 5 million adults with asthma in the UK, of whom half are thought to have relatively mild forms with little impact. Over 2 million adults, conversely, are estimated to live with severe symptoms and 1 in 5 see their asthma as life-threatening. Many asthmatics have it from childhood, although it is not uncommon to acquire asthma in adulthood in the workplace (or indeed a study environment), when sensitisation to a range of trigger substances or trigger circumstances will set off an initial asthma attack.

Asthma affects each person differently and different triggers can be implicated: pollen, animal secretions, dust (especially house dust mites), cigarette smoke, stress, chemical inhalation, fumes, perfumes and air fresheners. Everyday life may be circumscribed through having to avoid triggers. Many asthmatics will have a personal asthma action plan and be on a regime of medication. This may affect the student's stamina, sleep patterns and ability to undertake everyday tasks including exercising. Some students may experience daily asthma attacks and some will experience severe ones involving debilitating breathlessness and acute anxiety. Recovering from such an occurrence may take a week and some individuals can become socially isolated due to repeated periods of chronic attack.

Asthmatics will know the action to take in the event of having an asthmatic attack, e.g. use their inhaler, change posture and loosen tight clothing. In the rare circumstance of a medical emergency, the procedure to be followed is the standard one for the institution, of which academic staff should be aware.

Being anticipatory for students with asthma

Anticipating the learning needs of students with asthma involves having both a general understanding of the asthmatic profile and the needs of the individual. In the case of severe asthma, organising a meeting for information sharing involving the student, disability adviser, personal tutor and perhaps a nurse may be necessary and, with the student's agreement, include the outcome of arranging the support of a student 'buddy'.

Key points:

1. Be aware that new study and social environments may host substances that will be asthma triggers and that the stress involved in the transition to HE may also be a trigger. However, it is important to know that it is impossible to eradicate all possible triggers from the environment.

2. Anti-asthma medication may have side effects affecting a student's stamina and sleep patterns.
3. Severe asthma attacks may debilitate a student for a week after the event.
4. The effects of medication, trigger avoidance and asthma attacks are likely to lead to difficulties with task completion, the meeting of deadlines and a backlog of tasks building up.

8.4 Making 'reasonable adjustments' for students with asthma

The challenges of asthma for GEES teaching and learning	Inclusive strategies and reasonable adjustments
<p>Asthma triggers in the environment might lead to an asthma attack.</p>	<ul style="list-style-type: none"> • Ensure that staff are briefed on the health and safety issues for students with asthma, and that these are properly monitored. • Special attention must be given to the cleanliness of laboratories and workshops. • Identify asthma triggers when planning fieldwork and work-based learning. • Recognise the importance of a 'No Smoking' policy for student group work and the social aspects of fieldwork trips. • Devise and disseminate clear written briefings for all students on the interpersonal dimensions of group work. • Consider alternative assessments.
<p>Medication affects the student's stamina and sleep patterns.</p>	<ul style="list-style-type: none"> • Consider the implications when organising group work tasks, fieldwork activities and travel arrangements. • Explore virtual fieldwork options. • Allow additional time to achieve tasks and be flexible with deadlines.

The challenges of asthma for GEES teaching and learning	Inclusive strategies and reasonable adjustments
Student has week-long absences.	<ul style="list-style-type: none"> • Ensure that lectures, seminars and fieldwork planning activities are supported with good quality handouts and electronic versions. • Take a sympathetic approach to 'late' submissions. • With student consent, consider the arrangement of a student 'buddy'. • The use of assistive technologies in the home may be required, e.g. a personal computer may be funded through the DSA (see Appendix 3: The Disabled Students' Allowances (DSA)).
Student has difficulties with task completion and the meeting of deadlines.	<ul style="list-style-type: none"> • Allow additional time to achieve tasks and be flexible with deadlines. • Consider alternative assessment activities.
Anxiety about an asthma attack may be heightened by new learning environments, such as fieldwork.	<ul style="list-style-type: none"> • With student consent, consider the arrangement of a student 'buddy'. • Explore virtual fieldwork options and e-learning versions.
Not wanting to be treated differently to other students.	<ul style="list-style-type: none"> • Do opportunities exist for students to receive disability awareness training about equality of opportunity as part of Personal Development Planning? Or in other ways?

8.5 Diabetes

There are estimated to be approximately 1.5 million people in the UK with diabetes, who do not produce enough of the hormone insulin to control their levels of blood sugar. Diabetes can also include additional complications relating to cardiovascular disease, lower limb disorders, kidney disease and visual impairment.

A distinction should be made between hypoglycaemia (low blood glucose levels) and hyperglycaemia (high blood glucose levels). Hypoglycaemia can occur after an insulin injection, after taking diabetes medication orally, if a meal is missed or delayed, after strenuous or unexpected exercise, or if alcohol is imbibed on an empty stomach. The effects of mild hypoglycaemia are weakness, dizziness, blurred vision, disturbed sleep, sweating, hunger, shaking and irritability, and if left to become more acute, the individual will behave strangely as if drunk and perhaps faint. These symptoms can be rectified with ingested or liquid sugar. Severe hypoglycaemia will lead to loss of consciousness and require an injection of glucagon or other emergency medical intervention.

Hyperglycaemia, characterised by a rise in blood glucose levels, is indicated through excessive thirst, weakness and lethargy. A medical emergency can occur if the blood glucose levels become dangerously high, causing dehydration and coma. Such a circumstance would require hospitalisation and the procedure to be followed is the standard one for the institution, of which academic staff should be aware.

Students are likely to be experienced in evaluating their diabetic symptoms through the use of blood glucose monitoring, oral medicines and insulin pens. The aim of all treatments is to try to achieve near normal blood glucose and blood pressure levels. Diet and exercise are also important elements of maintaining a stable state.

Being anticipatory for students with diabetes

Anticipating the learning needs of students with diabetes involves having both a general understanding of the diabetic profile and the needs of the individual. Where the circumstances warrant it, organising a meeting for information sharing involving the student, disability adviser, personal tutor and perhaps a nurse may be necessary and, with the student's agreement, include the outcome of arranging the support of a student 'buddy'. If the diabetic student is involved in work-based learning, remember also to involve their mentor from the host organisation.

Key points:

1. Students are likely to need to maintain daily procedures for monitoring and controlling diabetes, including access to medication and regular meals.
2. Activities involving strenuous exercise, e.g. some forms of fieldwork, will need careful planning or substitution with an alternative.

8.6 Making 'reasonable adjustments' for students with diabetes

The challenges of diabetes for GEES teaching and learning	Inclusive strategies and reasonable adjustments
Medication may be required to be taken throughout the day.	<ul style="list-style-type: none"> • Be flexible about necessary student absences and reiterate key points missed, both orally and in written/electronic formats.
Students may be working under par or miss sessions due to diabetic episodes.	<ul style="list-style-type: none"> • Provide good quality notes to cover student absence. • Encourage the use of an audio recorder for which funding may be available through the DSA (see Appendix 3: The Disabled Students' Allowances (DSA)).
Not wanting to be treated differently to other students.	<ul style="list-style-type: none"> • Do opportunities exist for students to receive disability awareness training about equality of opportunity as part of Personal Development Planning? Or in other ways?
Activities away from campus, e.g. fieldwork, may pose additional logistical challenges.	<ul style="list-style-type: none"> • Accommodation and travel arrangements must include regular meal times. • Refrigeration facilities may be required for storing medicines during fieldtrips, etc. • Student may need to routinely carry high sugar foods or glucose-rich drinks to counter low blood sugar levels, and make additional dietary arrangements to supplement food intake for physical activities. Students susceptible to high blood sugar levels may need opportunities for exercise and refreshment. • Ensure that contact details and procedures are in place to cover medical emergencies.
Student apprehension about their own vulnerability in off-campus locations.	<ul style="list-style-type: none"> • Consider the use of a student 'buddy.'

8.7 Epilepsy

Epilepsy is the most common serious neurological disorder to be found in the general population of the UK, where approximately half a million people experience some form of epileptic seizure. There are five main categories of seizure but colleagues may need to distinguish between only two forms:

- tonic-clonic seizure (previously known as 'grand mal')
- absence seizures – momentary lapses of awareness.

The seizure threshold for people with epilepsy varies greatly and students with this medical condition, dependent upon its severity and form, are likely to be on a programme of anti-epileptic medication. It is therefore the case that most individuals with epilepsy will experience very few or no seizures, and many students with epilepsy experience seizures only at night time. Where tonic-clonic seizures are present, the individual is likely to be denied a sense of control, face unpredictability and probably have had experiences of a lack of understanding amongst others.

In the event of a major seizure taking place, staff are advised to put the student in the recovery position, place a cushion under the head and try to keep the individual comfortable. No attempt should be made to restrain the student and nothing should be placed in their mouth. Being less apparent, a non-convulsive seizure may require a staff member to carefully guide the student away from any danger. However, in the circumstance of a medical emergency, the procedure to be followed is the standard one for the institution, of which academic staff should be aware.

Being anticipatory for students with epilepsy

Anticipating the learning needs of students with epilepsy involves having both a general understanding of the epileptic profile and the needs of the individual. Organising a meeting for information sharing, involving the student, disability adviser, personal tutor and perhaps a nurse, may be necessary and, with the student's agreement, include the outcome of arranging the support of a student 'buddy'. It is also important to bear in mind the special circumstances affecting work-based learning and field courses so that all the relevant 'actors' can be properly briefed.

Key points:

1. The transition to University life may in itself be experienced as stressful and additional stress may cause seizures. Adopting the student lifestyle may also precipitate a change in seizure patterns.

2. Students with epilepsy do not perform to the best of their abilities for several days either side of a seizure.
3. Students may need to administer prescription drugs throughout the day, and these may have a detrimental effect on memory and concentration.
4. Some students will have photosensitive epilepsy, where flashing and/or flickering lights, both natural and artificial, will provoke seizures such as tonic-clonic seizure. This can have implications for television usage and televisions used as visual display units (VDU) (see below).

8.8 Making 'reasonable adjustments' for students with epilepsy

The challenges of epilepsy for GEES teaching and learning	Inclusive strategies and reasonable adjustments
Stress may cause seizures and changes to seizure patterns.	<ul style="list-style-type: none"> • Ensure that staff are briefed to manage seizures. • Consider operating a student 'buddy' system. • Ensure that all activities are carefully explained and written notes are supplied. • Provide early notification of assignment cut-off dates and flexible deadlines. • Review assessment timetables to relieve assessment 'bottlenecks,' especially at the end of modules when revision is also taking place. • Consider alternative assessment tasks.
Medication may be required to be taken throughout the day.	<ul style="list-style-type: none"> • Be flexible about necessary student absences and reiterate key points missed. • Refrigeration facilities may be required for storing medicines during field trips, etc.

<p>The challenges of epilepsy for GEES teaching and learning</p>	<p>Inclusive strategies and reasonable adjustments</p>
<p>Medication may lead to lapses in concentration and poor memory.</p>	<ul style="list-style-type: none"> • Produce clear <i>aide mémoires</i> for planning field trips and other practical activities. • Ensure that lectures, seminars and fieldwork planning activities are supported with good quality handouts.
<p>Students who have seizures are likely to under perform for several days either side of the seizure.</p>	<ul style="list-style-type: none"> • Take a sympathetic approach to 'late' submissions. • Consider alternative assessment activities and flexible assessment timetables. • The use of assistive technologies in the home may be required, e.g. a personal computer may be funded through the DSA (see Appendix 3: The Disabled Students' Allowances (DSA)).
<p>Photosensitive epilepsy may be triggered by natural or artificial flashing or flickering lights.</p>	<ul style="list-style-type: none"> • Don't use television monitors as VDUs. • Ensure that VDU users do not work too close to the screen. • Avoid displaying visual material that contains flickering or repetitive patterns. • An LCD monitor may be available for student use (purchased through DSA).
<p>Students may be anxious about group work, collaboration and presentations.</p>	<ul style="list-style-type: none"> • Disseminate clear written briefings for all students on the interpersonal dimensions of group work. • Use question and answer sessions to explore individual anxieties. • Staff should facilitate dialogue within the student group to ensure that the allocation of tasks is equitable and values student diversity. • Explore alternatives to presentations.

The challenges of epilepsy for GEES teaching and learning	Inclusive strategies and reasonable adjustments
Not wanting to be treated differently to other students.	<ul style="list-style-type: none">• Do opportunities exist for students to receive disability awareness training about equality of opportunity as part of Personal Development Planning? Or in other ways?

9

Part B: Conclusion

Students with hidden disabilities cannot neatly be compartmentalised to fit this catch-all concept, and academic staff are advised to discover all they can about any student in their department who has declared an 'unseen' or 'hidden' disability. Certainly, colleagues are advised to be sensitive to the particular circumstances of each individual student. Although the range of disabilities and medical conditions that may be subsumed within this definition are legion, we have set out to try and find some common ground through which we could explore general principles constituting a hidden disability profile. For example, stress, fatigue, lack of interaction and poor concentration may be the hallmarks of a hidden disability such as ME, etc.

Using this notion, we have set out a protocol for academic staff to aid them in understanding the impact of the hidden disability or medical condition on the individual student. This guide is, of itself, a briefing document for aiding that process of information gathering and awareness raising. We hope it provides some of the background for staff wishing to organise a meeting with a student, drawing up an action plan or exploring a range of 'reasonable adjustments' to meet the needs of the broadest range of student learning styles.

Beyond offering general guidance, we have also sought to concentrate on three specific hidden disabilities as they are widely believed to constitute the vast majority of those students recorded as having an 'unseen' disability within the HE sector: asthma, epilepsy and diabetes. Again, the purpose was to provide some background to the disability or medical condition, and synthesise this as a set of 'challenges' for those involved in teaching and learning. Parts of this guide will, we hope, be of particular relevance to staff working in the GEES disciplines, but we anticipate that much of what has been said will have value in many other areas of higher education. Wishing always to support solutions, we have at the same time proposed 'inclusive strategies and reasonable adjustments' to aid staff in their responsibilities to comply with DDA Part 4. As colleagues engage with the issues outlined in this volume, they may also wish to compile their own dossier of good practice as a departmental resource.

10

Postscript

As outlined in their respective Benchmark statements, and referred to in our introduction, GEES professionals have tasked themselves with 'recognising differences in cultures and the links between them' and interpreting 'the cultural relationship between society and the environment'. If we apply these ideals to the world of teaching and learning in HE, then we must take on board the challenge of diversity and provide an environment where this can flourish and where the individual student can be valued and make a valued contribution.

We hope that you have found this guide simple to use and we have been careful to try not to over-burden it with lengthy prose, preferring a tabular guidance style for busy academics seeking a quick route in. For those wanting to know more, at the end of the guide we have included a short bibliography and a list of websites.

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Additional sources of information on the world wide web

Dyslexia

Adult Dyslexia Organisation (ADO)

Provides help and assistance to all dyslexic adults:

<www.futurenet.co.uk/charity/ado/adomenu/adomenu.htm>.

The British Dyslexia Association

Offers advice, information and help to families, professionals and dyslexic individuals:

<www.bdadyslexia.org.uk/>.

The Dyscalculia and Dyslexia Interest Group

A discussion group set up by Loughborough, Coventry and de Montfort universities, which now has members in many institutions:

<<http://ddig.lboro.ac.uk/>>.

Coloured overlays and coloured lenses

Frequently asked questions about Meares Irlen answered in a clear and concise way:

<www.essex.ac.uk/psychology/overlays/faq%20OC6.htm>.

The Disability Rights Commission

<www.drc-gb.org>.

For the legislative framework and the Disability Discrimination Act Part II:

<www.drc-gb.org/thelaw/index.asp>.

The Dyslexia Institute

Information about dyslexia services, dyslexia associated training, teaching and publication details:

<www.dyslexia-inst.org.uk>.

Dyslexic.com

Includes information on Meares Irlen Syndrome and web links to research findings on the use of coloured overlays:

<www.dyslexia.com/home.php>.

SKILL: Bureau for students with disabilities

Offers a wide range of information and website links for students with disabilities:

<www.skill.org.uk>.

SKILL also offers information for international students with disabilities:

<www.skill.org.uk/info/infosheets/internat.doc>.

Techdis

An organisation aimed at enhancing access for people with disabilities to learning, teaching and research:

<www.techdis.ac.uk>.

Guidelines on accessible website design can be found at the techdis website:

<www.techdis.ac.uk/seven/>.

Techdis also provides information on dyslexia and e-learning:

<http://new.techdis.ac.uk/index.php?p=3_8_20051410031057>.

Asthma**Asthma UK**

Independent UK asthma charity. Includes downloadable pamphlets on a range of relevant issues:

<www.asthma.org.uk>.

About Asthma

Useful information on the medical side effects of asthma prescription drugs:

<<http://asthma.about.com>>.

Asthma and indoor environments

Information about common indoor asthma triggers:

<www.epa.gov/asthma>.

Diabetes**Diabetes UK**

Leading UK charity providing information and funding research. Includes a downloadable report, Diabetes in the UK 2004:

<www.diabetes.org.uk>.

The diabetes guide

Range of background information:

<www.bbc.co.uk/health/conditions/diabetes/index.shtml>.

Epilepsy**The Epilepsy Project**

Epilepsy and seizure information:

<www.epilepsy.com>.

Epilepsy Action

Provides clear background information:

<www.epilepsy.org.uk>.

Epilepsy Foundation

Disclosure, workplace and employment guidelines:

<www.efa.org/>.

The National Society for Epilepsy

Medical, residential and lifestyle information:

<www.epilepsynse.org.uk>.

NB. All web addresses last accessed January 2006.

Appendix 1

Programme planning, approval and review: a checklist for change

Framework policies for curriculum planning	Action comments
<ul style="list-style-type: none"> • What is the procedure for ensuring that anticipatory 'reasonable adjustments' will be made to make the curriculum accessible, through the planning, approval and review of courses/programmes? 	
<ul style="list-style-type: none"> • What procedures have been adopted to ensure that all staff involved in course/programme planning, approval, review and delivery are aware of their responsibilities under the DDA Part 4? 	
<ul style="list-style-type: none"> • How will responsibilities under DDA Part 4 be monitored and reviewed? 	
<p>Approval and review of programmes and courses</p>	
<ul style="list-style-type: none"> • Do approval panels include a member who is knowledgeable about dyslexia to address issues of DDA Part 4 compliance? 	
<ul style="list-style-type: none"> • Do members of the approval panel have opportunities during the approval process to inspect programme-related facilities for students with dyslexia? 	
<ul style="list-style-type: none"> • Do reports from the approval panel identify the fact that satisfactory and/or unsatisfactory measures are in place for the access of students with dyslexia? In what ways is approval contingent upon satisfying such criteria? 	
<ul style="list-style-type: none"> • In annual programme reviews is there a monitoring procedure or statement demonstrating DDA Part 4 compliance? 	

Approval and review of programmes and courses (continued)	Action comments
<ul style="list-style-type: none"> • Does the review monitor and evaluate the use and outcomes of any alternative assessment undertaken, e.g. in place of a fieldwork log, etc? 	
<p>Programme/Course Teams</p>	
<ul style="list-style-type: none"> • Has the course team demonstrated that the learning, teaching and support elements of programmes/ courses are accessible to students with dyslexia? 	
<ul style="list-style-type: none"> • Is it made clear in the resource base and specialist facilities underpinning the course/programme what is available to support the delivery to students with dyslexia? 	
<ul style="list-style-type: none"> • In the mapping of assessment to learning outcomes, is there clear evidence of the availability of alternative assessment tasks to meet the needs of students with dyslexia? 	
<ul style="list-style-type: none"> • Is the range, loading and timetabling of assessments suitable for students with dyslexia? 	
<ul style="list-style-type: none"> • What procedures are used to ensure that 'reasonable adjustments' have been made to non-campus locations for accessibility, e.g., fieldwork, off-site, placement and overseas? 	

Appendix 2

Some staff development topics for inclusive strategies in the support of dyslexic students

As practitioners, we are often asked by staff responsible for organising staff development to suggest pertinent topics for meetings and workshops on dyslexia awareness. What follows is a short indicative list of some topics that colleagues have found useful. Many have arisen as a result of addressing previous staff anxieties about the learning styles of this cohort of students.

- Can we reduce the discriminating and excluding features of current policy and practice?
- How do you respect confidentiality, when many students with dyslexia are reticent to reveal this to their tutors or peers for fear of discriminatory attitudes or because of their own sense of identity?
- Entry into HE is a stressful time for all students but for dyslexic students there is an additional strain on established coping mechanisms and old strategies may not easily transfer to the new HE environment.
- Adults with dyslexia assume that most people are very skilled in the areas they have difficulties with – thus thinking their own skills are much worse than they really are. How can we address this?
- Mature students, newly diagnosed with dyslexia and with poor school experiences, may have an outmoded sense of the rarefied academic nature of university life. How do departments engage with the resulting anxieties?
- By operating in a right-brained mode, students with dyslexia may show an aptitude for making connections, visualising global ideas and relying on long-term memory, but require practice and concrete examples for fundamental understanding. What are the best ways of addressing these characteristics in terms of activities such as group work, peer assessment, work-based learning, student presentations? (select one).
- Being 'taught' one-to-one may raise ghosts of previous learning experiences which engendered confusion, under-achievement, labelling and poor self-esteem, as well as burdens of guilt and anger.

- Certain periods in the dyslexic student's life at an HEI may be more stressful than others – the build-up of assessments at the end of the module, submission of a final dissertation, examinations, year-on transition. Heightened anxiety intensifies the dyslexia mode of operation. What's the solution?
- Can we assess student ability and not the effects of disability?
- Can we accommodate the learning styles of a range of learners at assessment?
- If Meares Irlen Syndrome is also present, what are the implications going to be for both the student and the teaching and learning strategies?

Appendix 3

The Disabled Students' Allowances (DSA)

Many of the inclusive strategies identified in this guide can be funded through the DSA.

In brief, DSAs are available for full-time and part-time undergraduate students, full and part-time postgraduate students, and students on distance learning courses. Eligibility does not extend to international students or students from the EU eligible only for support with fees, although some exceptions exist for students who have family members with 'migrant worker' status. Students on sandwich courses on a full-year paid placement are also not eligible. Eligibility is not dependent upon any form of means testing.

Students who may be eligible for DSA, but not in receipt of one, should be encouraged to seek the guidance of the disability support service in their HEI, where assistance will be available to facilitate an application. In the case of dyslexia, the student's Local Education Authority (LEA) will require a full diagnostic assessment of dyslexia, carried out after the age of 16, from a suitably qualified person. LEAs will not meet the costs of diagnosing dyslexia, but for students who cannot afford the fee, an HEI's Access to Learning Fund could.

There are three main awards under the general rubric of the DSA, each with its own index-linked, targeted funding, as follows:

Specialist Equipment Allowance can be used for the purchase of items of equipment, training in equipment use, repair, technical support and insurance.

Non-medical helper's allowance can be used for purchasing note-takers, extra support for literacy and to strengthen personal management skills.

General Disabled Students' Allowance can be used for purchasing paper, photocopying and buying key course books that might otherwise be only available through restricted short-term library loans.

Entitlement to the equipment and services funded by the DSA must be supported through a DSA assessment undertaken by a qualified assessor.

Full and further details of the DSA can be found at: *Bridging the gap: a guide to the Disabled Students' Allowances (DSA) in higher education* (DfES). Copies are available by calling a free information line on 0800 731 9133 and quoting reference S/BTGB/V4.

The guide is also available online at:

<www.dfes.gov.uk/studentsupport/formsandguides/>

or from the Student Finance Direct website at:
<www.studentsupportdirect.co.uk>.

Disabled Students' Allowances - Mind map

