

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.)

Verbal communications: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
	<ul style="list-style-type: none">• Arrange study skills sessions on taking accurate notes (funded through the DSA).• Use blue marker on a whiteboard instead of black.• Where guest lecturers are delivering sessions, ensure that they are aware of the needs of students with dyslexia.

For verbal communications mind map, see:
<www2.glos.ac.uk/gdn/icp/mindmap.htm>.

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.

Written materials: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
	<ul style="list-style-type: none"> • Avoid visual clutter, text overlaid on graphics or 'ghosting'. • Use a range of presentation devices such as flow charts, diagrams and mind maps. • Use coloured or recycled paper. • Make documents available electronically so that students can modify them to meet their needs and to read at their own pace. (See the guidance below '5.9 Online learning'.)
Pre-planning for practical activities such as fieldwork.	<ul style="list-style-type: none"> • Distribute materials well in advance of their required use. • Ensure that dates, times and place names stand out from the body of the text. • Inform students of reading lists well in advance to allow for difficulties with short-term library loans.

For written materials mind map, see <www2.glos.ac.uk/gdn/icp/mindmap.htm>.

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.

Written assignments, reports, fieldwork logs: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<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> <p>Stress induced by deadlines leading to poor performance.</p>	<ul style="list-style-type: none"> • Provide early notification of assignment cut-off dates and flexible deadlines. • Ensure that deadlines do not always 'bunch up' at the end of modules, particularly when revision is also taking place. • Make sure that the student is aware of the tutorial and dyslexia support available to them. • Explore the possibilities of alternatives to written, assessed tasks.

For written assignments mind map, see <www2.glos.ac.uk/gdn/icp/mindmap.htm>.

5.4 Mathematics, statistics and symbols

All GEES disciplines demand that students develop at least a basic competence in data handling, statistics and numerical analysis. Although numeracy does not pose a conceptual problem for students with dyslexia, mathematics and its attendant symbolic protocols can lead to difficulties with mental arithmetic, calculations, symbol recognition and ordering. Misunderstanding the numerical task because it is embedded within worded problems may lead to an inaccurate response from some students. Directional and orientational confusion can arise when translating symbolic information and may affect tasks such as map reading and understanding timetables. For mathematics mind map, see <www2.glos.ac.uk/gdn/icp/mindmap.htm>.

Mathematics, statistics and symbols: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<p>Confusions with mental arithmetic, calculations, symbol recognition and ordering.</p> <p>Recalling previous stages of calculations and losing the minutiae in a complex problem.</p> <p>Difficulties recording accurate data.</p> <p>Accurately scanning graphs for information.</p>	<ul style="list-style-type: none"> • Present problems in different ways to help those with different learning styles. • Assistive technologies such as talking calculators and text-to-speech software such as SpeakOut or TextHelp Read and Write (for reading and writing accuracy) may be purchased through the DSA.
<p>Misplacing and misreading decimal points.</p> <p>Missing out and misreading questions and worded problems.</p> <p>Confusion of symbols such as + and x, < and >.</p> <p>Mistakes in copying from line to line.</p> <p>Inversion of fractions.</p>	<ul style="list-style-type: none"> • Allow time, offer clear guidance and present problems plainly to reduce student anxiety and errors. • Investigate assistive software for concept or mind mapping that can accommodate mathematical formulae, e.g. MindManager. • Ensure that photocopying of timetables is clear. • Encourage highlighting of key information. • Allow extra time for proofreading and checking work.

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.

Group work and collaboration: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
Adopting a successful time management and organisation regime.	<ul style="list-style-type: none">• Electronic organisers, personal digital assistants (PDAs), computer-based software and diary planning software may be purchased through the DSA.

For group work mind map, see <www2.glos.ac.uk/gdn/icp/mindmap.htm>.

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.

Presentations and communications: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
The need to keep updating strategies to support learning and minimise the impact of dyslexia.	<ul style="list-style-type: none">• Consider facilitating self-supporting study groups for students.• Introduce mentoring support from students with dyslexia who are already achieving in a higher year of study.

For presentations mind map, see <www2.glos.ac.uk/gdn/icp/mindmap.htm>.

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.

Fieldwork: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<p>Multi-tasking difficulties: listening, recording, observing and critically thinking causes overload, fatigue and anxiety, which reduces performance.</p>	<ul style="list-style-type: none"> • Be clear verbally about the principal tasks and the priority and relative significance of points. • Ensure that documents meet the criteria for accessibility set out in the guidelines above '5.2 Written materials for the student'. • Ensure guest lecturers understand the impact of dyslexia. • Encourage the student to use assistive technologies in the field. • Pair and share responsibilities between students. • Try to reduce the amount of information processing required.
<p>Distractibility in the field caused by background noise, unfamiliar surroundings and visual stimuli.</p>	<ul style="list-style-type: none"> • Staff to be cognisant of the problem. • Select quieter field locations. • Separate observation, listening and recording tasks. • Offer evening de-briefing and feedback sessions.
After the field trip	
<p>Translating poor field notes into a version to support formative assessment.</p>	<ul style="list-style-type: none"> • Allow additional time. • Consider alternative assessments.

Mind maps for before, during and after the field trip:
www2.glos.ac.uk/gdn/icp/mindmap.htm.

5.8 Work placement and work-based learning

In recent years, an increasing number of GEES departments have begun to offer various forms of work-based learning, often in the form of a 10 or 20 credit module. Placements taking a full year or semester remain rare, but more and more departments are offering short-term placements with organisations such as planning departments, mineral companies, water companies, the Environment Agency and conservation bodies.

Many of the challenges for the dyslexic student on work placement or work-based learning will be the same as those pertaining to the previous sub-sections. Taking the student away from the usual study environment has many advantages providing they have adequate technological support such as a laptop PC, an audio recorder and assistive software for text-to-speech and mind mapping (all available through the DSA). This may also be an opportunity for the student to deploy some of the positive aspects of dyslexia which many will demonstrate, such as their holistic approach, creative ideas, leadership skills, good visuo-spatial strengths and lateral thinking.

Work placement and work based learning: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
Facing the challenge of choosing to declare dyslexia.	<ul style="list-style-type: none"> • Recommend sessions with careers advisers to address disclosure issues.
Working away from the usual support systems. Orientation in a new environment. Managing a new work and time regime. Dealing with possible anxiety and stress in unfamiliar situations with new colleagues.	<ul style="list-style-type: none"> • Alert the student to the DSA process in plenty of time for support to be put in place. • Ensure that the assessment for the DSA covers work placement and work-based learning issues. • Provide students with contact numbers for support services and support tutors. • Make sure the student has clear instructions, directions and guidance prior to commencement.

For work placement mind map, see <www2.glos.ac.uk/gdn/icp/mindmap.htm>.

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.

Online learning: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
	<ul style="list-style-type: none"> • Design PDF files that are accessible with no encryption or security locks to allow students to make use of PDFAloud or Acrobat Reader version 6 with accessibility elements downloaded to include the built-in text reader. • Develop PowerPoint presentations that have Web Publishing Wizard for Microsoft Office offered by University of Illinois at Urbana/Champaign <http://cita.rehab.uiuc.edu/software/office/>. <p>This facilitates reading by a text-to-speech programme. Accurate results can be achieved by always using the templates for slides offered by Microsoft and tagging or labelling graphics.</p>
<p>Reading freely without distractions and discomfort from visual perceptual distortions in the text.</p>	<ul style="list-style-type: none"> • Text interspersed with visuals must be sensitively displayed. • Avoid visual clutter, text overlaid on graphics or 'ghosting'. • Navigational icons are valuable but cannot be read by online browsers (text alternatives must be provided). • Website links located within the text can be confusing – make a separate display list. • Having defined a successful layout, apply it to all pages.

For online learning mind map, see <www2.glos.ac.uk/gdn/icp/mindmap.htm>.

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.

Assessment: the challenges of dyslexia	Inclusive strategies and reasonable adjustments
<p>Not wanting to be treated differently to other students.</p> <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 occasioned by group work.</p> <p>Suffering the effects of a lack of confidence and low self-esteem.</p> <p>Mis-cueing facial expressions and body language.</p>	<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, especially with regard to peer assessment, group assessment and problem-based assessment? • Staff should facilitate dialogue within the student group to ensure that the allocation of tasks is equitable and values the diversity of student input. • Guidelines for students in self and peer assessment should be available in accessible formats. • 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.
<p>Adopting a successful time management and organisation regime.</p>	<ul style="list-style-type: none"> • Study skills support for better time management and recall skills purchased through the DSA.

For assessment mind map, see <www2.glos.ac.uk/gdn/icp/mindmap.htm>.

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:

