

Students who are

Blind or Visually Impaired

INTRODUCTION

The terms "visual impairment" and "blindness" cover a wide range of levels and types of sight loss. What works for one student may not for another, and many are likely to use a combination of approaches that combine visual and non-visual methods. These can range from voice output on a computer, personal readers and Braille for those who have little or no sight, to large print and enlarged computer text for partially-sighted students. Because of this variety, it is really important to gauge and respond to individual learning needs, to ensure that visually impaired students are not disadvantaged. Many adaptations, such as Braille of lecture notes or recording on tape, require forward-planning, so you will need to find out from the Programme Leader or the student themselves what their particular needs are and include these in planning your teaching.

The highly visual nature of art and design can present different challenges from a text-based course for a visually impaired student, so the standard adjustments may have limited use. You may find some helpful ideas in this case-study written by a visiting lecturer who has found ways of developing flexible support for visually impaired students studying design. For a student perspective, see the case-study in the section on "Students with Physical Disabilities".

Case Study

I have been teaching as a part time lecturer for some four years now, coming direct from industry initially one day a week as an IT based instructor. My role soon developed right across the course curriculum into studio based design tutorials as well as course development. The whole aspect of teaching students with additional needs was integral to the learning curve as the Programme had a large proportion of both international and dyslexic students.

As part of my role as personal tutor I have also undertaken additional support tutorials with a student with a serious visual impairment. In this case certain normal methods of learning and teaching, especially within a classroom/lecture setting, are less appropriate. Without additional support, this disability could mean that the student does not have access to critical elements of their learning experience.

We have addressed this through additional one-hour weekly sessions, where we review progress to date and suggest ways forward with regard to any area where there may be specific difficulties, such as in communication.

These one-to-one sessions have proved invaluable. My input ensures that particular concepts are articulated and demonstrated in alternative ways appropriate to the student's learning style so that their progress on the programme is not unfairly inhibited.

Project briefs and any other support material are made available to the student in whichever format is preferred (e.g. printed or a digital copy on disc) in advance. In most instances this favoured format is in the form of an on-line digital resource that can be accessed by the student via our Virtual Learning Environment.

WHAT IS A VIRTUAL LEARNING ENVIRONMENT?

- A COURSE MANAGEMENT SYSTEM

- AN ELECTRONIC PORTAL FOR:
 - Downloading and viewing various Learning & Teaching materials
 - Communicating with students
 - Organising course related web links to other on-line communities

I became actively involved in the Programme's initiation of a Virtual Learning Environment in response to specific objectives of the Institute's Learning and Teaching Strategy. Key to the initiation of this has been accessibility of Learning and Teaching resources to a diverse student group. This touched on the Institute's Widening Participation strategy by providing methods in support of traditional lecture, seminar and tutorial based teaching for non traditional learners. Material in the form of on-line digital resources can be accessed at any time and at the individual students' convenience, encouraging flexible, independent learning.

This has also proved beneficial to international students and those with additional requirements, including dyslexia and partial sight, as it enables them to revisit and absorb lecture material at their own pace. Electronic methods of delivery can benefit students by providing on-line material that can be quickly and economically downloaded by them at home. The use of suitable file formats such as Adobe's PDF (Portable Document Format) provides the student with an immediate ability to view the material via a freely downloadable player such as Adobe Reader. The ability to literally zoom in on specific aspects of the material for enhanced clarity is built in to this software whilst some students with particularly bad visual impairment have magnifiers bolted onto their computer screens for even more enhanced visibility.

Although this flexible screen based viewing, allowing the actual size of what is being seen to be tailored to individual students needs, is preferable to the more traditional 'hand-out', the material can of course also be printed out for students to have ready access to a 'hard' copy and it is best if this at A3 size with a suitably large sans serif font (12 point minimum).

The following advice, which I have picked up along the way, pays particular attention to the use of colour and can be applied to learning and teaching material which may be made available to the student either in print or on screen.

Try not to get too hung up on colour per se, and concentrate more on the hue of particular colours. For example you could produce something that would communicate perfectly well using ONLY blue, as long as the different tones of blue contrasted sufficiently. A good test of this is to take a black and white photocopy of a draft, which will roughly show the contrast between the different elements.

More important, however, is the general organisation of the material. The overall composition, orientation, size and logical arrangement of the work are where the ultimate success or failure to communicate well resides.

PROGRAMME DELIVERY & ASSESSMENT METHODOLOGY

As a direct response to comments by External Examiners and the Quality Assurance Agency Process key practical skills can be delivered on-line as recorded real-time demos and other "How To..." sequences. Static and video rich sequences of key "How To..." processes are delivered by tutors, industry professionals and peer support students.

As the use of multi-media in the form of moving imagery becomes more used in my own profession to communicate the potential realities of spatial design, then it is imperative that this can be fed back to the students as part of the learning process.

A Virtual Learning Environment is the perfect mechanism through which to deliver this as it allows material to be perceived by students through sound and moving imagery as well as purely visually.

It is this multi-sensory aspect that is key to the success of such mechanisms in teaching Art & Design subjects that are, for the most part, multi sensory stimuli. The great thing is that all students should benefit from this approach, irrespective of their own personal sensory ability.

EXERCISE:

Having read this account, think about your own experience or expectations of teaching visually impaired students. Use the matrix below to note down what kind of preparation and adjustments might help these students to get the most from studying with you.

Blind or Visually Impaired	Learning/Teaching			Assessment	Social Interaction/ group work
	Preparation	During session	Follow-up		
Issues					
Strategies					
Benefits					
What other support or information might you need?					
Where or who can you get this from?					

Points and Strategies

- Remember each student is different, both in the type and extent of sight loss, and also in their own preferences – for example some may read Braille, others do not
- Many visually impaired students will have evolved their own coping strategies and study preferences, so do discuss planned strategies with them

BEFORE A TEACHING SESSION

- Find out whether the student(s) require information in Braille or on tape or disk, and arrange through the University/College for this to be provided. The student may also appreciate it being given to them in advance
- Check the student's preferred type size and prepare handouts in clearly contrasting shades using plain typefaces
- Visual materials such as videos, slides or computer graphics may need to be provided in advance to partially sighted students, or transcripts of videos prepared for blind students. Label items clearly in large text or Braille
- Look at the teaching area: are there potential hazards for a visually impaired student? Are the colours of the room contrasting enough for a partially sighted student to find their way around? Is there a bright light source behind the lecturer which may prevent the student from seeing you clearly?
- If you are using visual aids ensure these have text descriptions

DURING THE SESSION

- When working with small groups, consider keeping seating arrangements the same so that the visually impaired student knows who is speaking, or ask participants to give their name before making a contribution
- Speak clearly, and be aware of non-verbal communication such as pointing or demonstrating, which the student may not pick up
- Agree on note-taking strategies, such as a laptop, tape-recorders as back-up, or the assistance of a sighted note-taker
- Photographs, pictures or designs may need to be described on tape, or provided in a larger format to allow equal access
- Be aware of health and safety issues when using or demonstrating equipment

Points and Strategies

- In practical studio sessions, the visually impaired student may need the help of an assistant. If so, you will need to work with both the student and their helper to find creative ways of maximising their learning experience

RESEARCH AND ASSESSMENT

- As research may be an additional effort for visually impaired students, prioritise reading lists for them
- Arrange for extra time for assignments and assessments if required

E-MAIL

- If you are emailing a visually impaired student, keep to simple typefaces and layouts