Abstract
Distance education has been referred to as ‘any time, any place, any where’ - resonant of the 1970s Martini TV advert. For the purist a martini without the olive is not the real thing as an essential ingredient is missing, and the same can be said of education which is not the real thing for a disabled person if reasonable adjustment for their disability is absent.

This paper considers the issue of study impairment within the context of a specialist distance learning institution providing vocational courses, and examines the aspiration, expressed by the United Nations (2003), that ‘the equalisation of opportunities for persons with disabilities is an essential contribution in the general and worldwide effort to mobilise human resources.’

Key Words
Disability, discrimination, distance, vocational, adults, international.

1. Introduction
Globally the real estate and construction industry is a dangerous work place. For this reason it may be anticipated that only non-disabled people who can negotiate the daily hazards are employed within the sector. Similarly, by extension, it may be presumed that individuals working in the industry that enrol for distance learning courses in order to become professionally qualified are not disabled. The result of this can be the conclusion that the disabled do not need to be accommodated either in professional practice or in professional education.

In terms of health and safety this supposition may have some validity as no individual or employer will intentionally place themselves or their employees at risk, however, there are many areas of work where the disabled may successfully be employed. Changes to the disability legislation in the UK make it increasingly likely that such people will be employed within the sector, and consequently will present themselves for enrolment on courses for professional career development.

A person is described as disabled if he or she has ‘a mental or physical impairment which has an adverse effect on their ability to carry out normal day-to-day activities’ (Disability Rights Commission, 2003). The adverse effect should be substantial and long-term - considered as lasting for 12 months or more. This definition of a disabled person covers people with a wide range of disabilities and health conditions - from a visual impairment to arthritis, cancer, multiple sclerosis, heart disease, depression, Downs Syndrome and diabetes. Clearly there are degrees of disability with only a few forms positively preventing a person from undertaking work of some kind. This is a fact that an institution such as the College of Estate Management has to recognise and be prepared for.

The College is the leading UK provider of distance learning courses for the property and construction professions internationally. Annually it has over 4,000 students studying for qualifications awarded by the College or by the University of Reading, and accredited for membership by one of the professional bodies. Over thirty percent of its annual enrolment resides outside the United Kingdom or Europe in over 80 countries - mainly in China, South East Asia, the Middle East and the Caribbean.

The College prides itself on being non-discriminatory. No student is refused a place on a course providing they are able to meet the minimum English language and academic entry requirements; and pay the course fees. As a result it is perceived that discrimination in terms of gender, race or religion does not occur as all students are treated equally. Where there is potential for unintentional discrimination is in respect of disability, and this risk increases as more courses are delivered online so further reducing the opportunity for real time contact with the student.

2. Changing Attitudes
Until 2005 the College did not ask students about their health as part of its admissions process, not because it was uncaring but due to the ‘invisibility of the issue. Students with visible disabilities, such as people who are blind or who are using wheelchairs, are noticed in the physical campus environment’ (Schmetzke, 2002) but not at distance. Indeed distance learning can be regarded as a benefit for students with disability as it allows them to pursue their studies in an environment that
suits their condition and to conceal it if they wish. Apart from attendance at an examination centre a student need have no direct physical contact with the College. Thus it is probable that the specific characteristics of a student are never known unless the student personally makes the College aware of them. Once this approach is made the College has traditionally provided the necessary support, however, this was a reactive rather than proactive stance and left the College vulnerable to criticism within the context of changing attitudes to disability in education.

Coombes (2000) offers four reasons for making education accessible to all. First it is ethically the right thing to do. In a developed society we should not stand by and allow the less fortunate to be discriminated against. Secondly, it is the selfish thing to do as, with advancing age, our senses grow weaker and our mobility decreases so improved accessibility means that the things we value continue to be available for us. Thirdly, the law demands it. Failure to comply leaves us open to being sued for damages in costly court cases. Lastly improving accessibility is an economically sensible thing to do given the extra costs involved in producing alternative versions of learning materials.

3. Scale of the Problem
The concern is that the magnitude of disability amongst the College’s students, at home or abroad, is not known with any precision. Although the assumption that disabled students do not enter the industry, and consequently do not enrol for College courses, may have some validity in respect of severe cases it does not take into account less severe disabilities and learning impairment in particular. Such a stand-point also does not allow for the pride of a person with disabilities, many of whom do not wish to draw attention to their impairment and consequently do not reveal their disability when enrolling for courses. An early study of Open University students suggested that the number of students with a disability serious enough to impede study was 1 in 50 (Tudor, 1976). However this was based on those students who identified themselves as disabled and the real number was likely to be greater.

3.1 All Disabilities
Establishing how many students with disability may present themselves for study is not straightforward but is necessary if Coombes’ ethical reason is to be addressed. In Britain, the Disability Rights Commission has estimated that the number of disabled people may amount to 1 in 6 of the population or in excess of 10 million individuals. Of these, approximately half are likely to be over the State Pension Age and around 7% to be children (Kirri et al, 2005). This suggests a potential for over 300 College students to have some form of disability. This is likely to be the peak value as it includes all disabilities and needs to be contrasted with data for individuals with learning disabilities.

3.2 Learning Disabilities
Statistics from the Foundation for People with Learning Disabilities indicate that 1 in 50 people in the UK suffer from mild learning disability (Emerson and Hatton, 2004). This amounts to almost one million people in England of whom 80% are aged over 20. Further to this, Health Department figures showed that an estimated 200k people had severe and profound learning disabilities in England, or 1 in 200 of the population (Department of Health, 2001). It has been estimated that 17% of people with learning disabilities who are of working age have a paid job (Emerson et al, 2005), and this suggests that around 15 College students can be expected to suffer from some form of learning impairment of whom 4 or 5 may suffer severe learning disability.

3.3 Age Related Disabilities
Increasing disability with age is an important point for providers of adult education to be aware of. The data above makes some differentiation for age and this is relevant to Coombes’ second reason relating to the ageing effect. The UK Department for Work and Pensions (2002) has estimated that disability increases threefold between the ages of 24 to 45. This is supported by the Disability Rights Commission (2007) which indicates that only 10% of adults aged 16-24 are disabled, while one third of people between the age of 50 and retirement age suffer from some form of disability. By 2020 they estimate that 58% of people over the age of 50 will have a long term health condition. Given that the average age of the UK working population is set to rise over the next two decades it can be anticipated that vocational courses will include an increasing number of older students with some form of disability.

3.4 International Comparison
To place the UK in an international perspective previous studies have estimated that 1 in 14 Americans have work disabilities (Foley, 2003), 1 in 10 Indians are disabled in some way (Ramanujam, 1997) and 1 in 8 Germans class themselves as suffering from a disability or long-term illness (Ommerborn and Schuemer, 2001). The problem with international data is that the quality of reporting varies considerably, due to differing definitions of disability, methods of collection etc, such that in developed countries the rates appear high in comparison with developing countries. For example World Bank data (2007) suggests disability rates of 19.4% and 18.5% in the United States and Canada, respectively, whereas the reported rates of disability in Kenya and Bangladesh are less than 1%. Overall the World Bank estimates that a 10-12% rate of disability is a reasonable figure worldwide, keeping in mind that disabilities range from severe to moderate to mild.
These figures point to the global awareness and concern for the disabled which the College’s international recruitment of students cannot ignore.

Taking the general indicators above it is conceivable that up to 500 College students may suffer from one form of disability or another, however, it is more probable that the potential number requiring provision is less than half this. Of these up to 80 may suffer from a mild learning disability, and 20 from a more severe learning problem. Recognising that students may be reluctant to come forward means that the actual proportion requiring adjustment in their studies is 20-25%, or 5 – 20 students per year.

4. The Law and Discrimination

Less than 20 students may not seem a significant number and in previous times they would have been dealt with in an ad-hoc fashion. The difference is that ‘access for the disabled and statements of non-discrimination against under-represented groups … came about not because of enlightened faculty members, but because of … laws’ (Tierney and Rhoads, 1995).

The law is Coombes’ third reason for ensuring accessibility for the disabled and the legislation stems from the UN Standard Rules on the Equalisation of Opportunities for Persons with Disabilities adopted by resolution 32/2 in 1991. These rules were not mandatory but ‘imply a strong moral and political commitment on behalf of States to take action for the equalisation of opportunities… (and) to take appropriate action to remove such obstacles.’ (United Nations, 2006).

4.1 Disability Discrimination Act 1995 and Special Education Needs and Disability Act 2001

In the UK legislation was initially enacted in the Disability Needs and Disability Act 2001 (SENDA) which removed the previous exemption of education from the DDA. ‘The principle behind this legislation is that disabled people should have the same opportunities as non-disabled people to benefit wherever possible from whatever education or other related provision is available’ (Disability Rights Commission, 2002). The purpose of the SENDA is to outlaw discrimination against a disabled person by the providers of post 16 education in admissions, enrolment and any services put on specifically for students.

4.2 Definitions of Discrimination

Under the Act discrimination can be considered to take two forms. Firstly discrimination may be the less favourable treatment for a reason related to a person’s disability without justification, for instance, refusing to accept a student with dyslexia onto a course. Less favourable treatment can be justified only where it is necessary to maintain academic standards; or it is of a prescribed nature; or it occurs in prescribed circumstances or the reasons are both material to the circumstances of the particular case and substantial. An example of prescription would be admissions criteria set by external validating bodies such as professional bodies or universities.

Secondly discrimination may be through the placing of a disabled student at substantial disadvantage compared to a non-disabled student because the provider has failed to make reasonable adjustments. An example of reasonable adjustment would be the provision of sign language interpreters for a deaf student during a face to face tutorial. In assessing substantial disadvantage the provider must take account of the time, inconvenience, effort or discomfort experienced by the disabled student in comparison with a non-disabled student. The meaning of reasonable adjustment is not fully explained in the Act and mitigating circumstances may include the need to maintain academic standards, availability of financial resources, the costs of making changes, health and safety issues and the interests of other people.

The concept of reasonable adjustment is important as the Act places a duty on the provider to be anticipatory. In other words it is not acceptable for an institution to wait until a disabled student applies for a place before considering how best to support that person’s impairment. Typically anticipatory action would include having print materials available in Braille or the availability of signers. These are indicative and the actual support for a disabled student must be established after an individualised assessment of their specific needs. Failure to meet these obligations may result in the provider being sued for damages.

4.3 College Compliance

Technically the College could argue that it falls outside the provisions of SENDA. The Act places the duty not to discriminate on the educational institution as the responsible body but defines educational institutions as those within the further or higher education sector that are ‘wholly or partly funded from public funds’ (SENDA, 2001). As the College is independently funded it may be deemed to be excluded, however, the responsible body is legally liable for the actions of the institution as a whole and that of any agents working for it. It can be argued that in offering courses leading to University of Reading degrees the College may be considered as acting in an agency capacity and consequently come within the SENDA rules.

Irrespective of any exclusion from SENDA the College is still bound by Part 3 of the Disability Discrimination Act 1995 which covers the provision of goods, facilities and services. This uses the same interpretation of disability and discrimination as SENDA and consequently the
same basic duty to address the disability issues of its students as purchasers of the ‘educational goods’. Although both the DDA and SENDA are UK legislation the Disability Rights Commission has interpreted the meaning to include home, EU or international students studying full or part-time through distance, e-learning or conventional education. This suggests that the College must also be aware of any disability that may affect the accessibility of its 800+ overseas students.

5. Models of Disability
In the past century two main models of disability have been used and have been joined more recently by a third.

5.1 Medical
The medical model adopts the view that the disabled person has something medically wrong with them which cannot be put right. In consequence it is that person’s misfortune that they cannot share in the same experiences and benefits as their non-disabled peers. Such a view is used to support the legislation, but it does not explain the attitudes which result in discrimination.

Until the post 1945 period most disabled people were either cared for in the family home or in an institution, often a mental hospital. Thus they were either ‘invisible’ or labelled as ‘not normal’. Invisibility suggested a strong economic motive as the inclusion of someone ‘not normal’ in the family grouping might have influenced society’s attitude to the group as a whole and consequently their employability. It also revealed values in society which favoured fitness and well being as the norm. Labelling as ‘not normal’ conveniently categorised the disabled in a way that meant they could be disregarded.

5.2 Social
Society has moved on and in contrast to the medical model, the social model treats the disabled person as equal to their peers but for their impairment or medical condition. Their disadvantage lies in the way society is built (both figuratively and physically) and that they are ‘disabled’ by the society in which they live due to their impairment. This sees disability as ‘a social status resulting from cultural values and practices that stigmatise, marginalise and oppress disabled people’ (Foley, 2003).

The social model offers a far more emancipatory view than the medical one and has become firmly established during the last twenty years as disabled people have broken down the cultural barriers.

5.3 Deficit
The central tenet of the legislation is that a disability can be defined in black and white medical terms. Since the early 1980s the World Health Organisation has built a register of definitions of diseases and disabilities amounting to several hundred. This poses a problem for the concept of ‘anticipation’ and ‘reasonable adjustment’ required within the SENDA legislation leading to a third model for disability - a deficit model.

Australian research identified three problems with targeting adjustment at specific disabilities. First it relies on the student disclosing their disability and support needs. Second by targeting specific disabilities huge demands are made on the institution and its employees when a number of different types of disability must be accommodated at one time. Third it ‘presents a very exclusionist approach to disability support that is likely to lead to adjustments becoming discontinued as they are seen to be relevant only to one or two students with disabilities’ (DEST, 2004) – a situation faced by the College given the projected numbers.

The deficit model suggests that a holistic view of the student body be taken that identifies a learning environment built around inclusive methods of design and delivery. As education makes wider use of technology this becomes an increasingly higher priority not least for the economic reasons proposed by Coombes. To make radical change to expensive systems after they are in place drives the costs higher at a time when both time and funds are limited. Being self financing the College is averse to incurring additional expense unless it is necessary, however, it accepts the deficit argument that improvements in the design of learning materials benefits all students and not simply those with identifiable impairments, and has adopted this model in developing its policy.

6. Avoiding Discriminatory Practice
In order to decide whether the College was discriminatory a definition of discrimination was needed against which this could be tested. The disability legislation is only partly helpful in this respect. The two forms that the Disability Discrimination Act 1995 identifies are ‘less favourable treatment’ and ‘placement at substantial disadvantage’. The problem in using the former is that “less favourable” is a highly subjective definition. Asking a student if they are less favourably treated than someone else requires them to have specific knowledge of every student taking their course - something that is unreasonable to ask of distance learners.

More helpful is the ‘substantial disadvantage’ definition as this can be more objectively measured against the study components. Substantial disadvantage depends on a number of factors including the extra time and effort that a disabled student might need; the inconvenience, indignity or discomfort they might suffer and the loss of opportunity or the diminished progress that they may make in comparison with other non-disabled students.
In establishing the level of disadvantage it was considered impractical to consider every individual disability. Therefore an incremental approach was taken in the first instance to identify generic issues of discrimination within groups sharing similar impairments:

- Physical impairment (e.g. loss of limb or of mobility)
- Visual impairment (e.g. full or partial blindness)
- Auditory impairment (e.g. full or partial deafness)
- Learning impairment (e.g. dyslexia or mental conditions)
- Chronic illness (e.g. epilepsy or asthma)

Changes have taken place within the College, with the appointment of a disability officer and a specific question added to the application form asking potential students to declare any disability they may have. Each self-declaration is followed up with a telephone interview during which the specific detail of the impairment is identified and the necessary actions discussed and agreed.

This identifies the student but is still reactive. To be more proactive the College has had to examine its traditional ‘one coat fits all’ style of course delivery to identify where reasonable adjustments can, and should, be made. Solutions needed to be practical not only in ensuring compliance with the legal requirements but also in improving the learning experience for all students. As the majority of study material is text based and produced in-house, a year long project was carried out to review the appearance and style of the study materials, both for printed use and onscreen reading. This resulted in adjustment in layout, font and colours to cater for visual and learning impairments, backed up with measures such as identifying external sources for converting text to Braille and providing audio playback.

7. Continuous Adjustment

The College does not intend to stop at this point. Although it is confident that it has anticipated the most likely disabilities, and has contingencies for others that may be presented, it is keen to continue the improvements. Recognising that an inclusive agenda benefits both disabled and non disabled students, the difficulty is knowing which components need adjustment and for what reason. This can only be ascertained from student experience but caution has to be exercised as this varies from year to year. Consequently the College is aiming for continuous monitoring of its provision through feedback procedures directed at collecting data about a student’s disability needs and their utility of study components. This data allows each response to be placed in one of the four quadrants shown in figure 1, either collectively covering all components or individually covering text materials, face to face, online discussions etc.

| Student claims no impairment in using the component | Student claims one or more impairments in using the component |
| Student satisfied with the usability of the component without change | Student satisfied with the usability of the component without change |
| Student suggests changes to improve the component utility | Student suggests changes to improve the component utility |

### Figure 1: Continuous Adjustment Framework

#### 7.1 Interpreting the Framework

Referring to figure 1, the following interpretation is summarised for each quadrant.

**Quadrant A**

The higher the proportion in this quadrant compared to the other quadrants, the less concern the College need have that it is discriminating against the general student population. Its existing provision may be deemed to be satisfactory and only adjustment for disabled students on an individual basis need be made. A low proportion here indicates serious problems in the design and delivery of the study components and the need for a major rethink of its provision.

**Quadrant B**

A high proportion of students in quadrant B shows a mismatch between the College’s perceptions of its student needs and those of the student body. This would indicate the need for rethinking the design or delivery but would not indicate discriminatory practice. A low proportion would tend to confirm the suitability (or tolerance) of the existing provision.

**Quadrant C**

A high proportion of students in quadrant C relative to quadrant D would indicate a lack of discrimination in, or tolerance of, the study components - particularly if the students fitted a similar profile to those in quadrant A. The College’s perception of the needs of its students would be confirmed and only adjustment for disabled students on an individual basis need be made. A low proportion supports the view that the sector does not recruit people with disability.
Quadrant D
This is the critical area. As the proportion of students in this quadrant increases compared to the other three the College could be positively accused of discriminatory practice. This requires a major rethink of its material’s design and delivery for all students. In contrast a low figure here would point to the need for an individual needs adjustment only.

8. Conclusion
The College is keen to offer its students the best educational experience that it can. Personal recommendation is the most common source of new students and is an important aspect of the College’s marketing. Therefore changes which improve the quality of the study provision for all students, and which keep the College within the law, are seen as essential developments.

Use of the continuous adjustment approach outlined here is to be recommended as it is simple but effective in operation. Evaluating the usability of different study components on a continuous basis both allows targeted change to be made and keeps disability and inequality on the institutional agenda.

All providers will need to adopt a similar approach if the predicted shifts in demography, employment and health are realised. In a global community where the student is invisible due to the nature of distance study this becomes a vital aspect of good practice if the mobilisation of human resources is to be fair and equal.

References


Ommerborn, R., Schuemer, R., 2001: “Using Computers in Distance Study: Results of a Survey amongst Disabled Distance Students”, FernUniversitat, Hagen.


