

BUILT ENVIRONMENT

Principles of inclusive curriculum design

Anticipatory
Flexible
Accountable
Collaborative
Transparent
Equitable

Generic considerations

- cost and financial considerations;
- embedding student and staff well-being;
- promoting student engagement;
- use of technology to enhance learning;
- responding to different approaches to learning;
- avoiding stereotypes and celebrating diversity;
- making reasonable adjustments.

Introduction

It is the responsibility of the every member of staff within HE to respond to the requirements of equality legislation. The basic principle that can and should be universally responded to is that **it is attitudes, barriers and other forms of discrimination within the system rather than individual characteristics or deficits that are the cause of disadvantage**. Employing an inclusive approach is underpinned by the adoption of other principles of inclusive curriculum design, summarised in the adjacent text box and discussed in the introduction section of this guide available at www.heacademy.ac.uk/assets/documents/inclusion/disability/ICD_introduction.pdf

May and Bridger assert, in respect of developing an inclusive culture, “making a shift of such magnitude requires cultural and systemic change at both policy and practice levels” (2010: 2). In essence this change is represented by a shift in focus from responding to the ‘needs’ of individuals or specific groups of students to an approach that anticipates and plans for the *entitlements* of the evolving student population. Thus the onus is on institutions and subject communities to change and adapt their policies and practice rather than expect this of individual or specific groups of students.

There are many generic considerations of inclusive curriculum design, summarised in the adjacent text box, which are discussed in the introduction section. The focus of this section is on subject-specific considerations for those in those subjects aligned to the built environment. Here examples of innovation and effective practice are provided to demonstrate that effective practice for one group can and should be effective practice for all. The examples, resources and ideas included in this and other subject guides have come from the sector. They were obtained directly in response to a general request made to the sector during 2010, from a review of the HEA Subject Centres or from recommendations made by colleagues teaching in the specific subject.

Where there are examples in other subject guides that may be particularly relevant or worth reviewing for further adaptation these are flagged. However, notably inspiration and ideas for curriculum design can come from many sources, therefore reading strategies employed and ideas in other subject areas can be a useful source of new ideas.

Inclusive curriculum design: subject-specific considerations

Integrating conventional design processes

Universal Inclusive Design (UID) is integral to conventional design processes within the built environment curriculum. Within the built environment curriculum, universal design is also known as barrier-free design, inclusive design and transgenerational design. UID provides the basis of inclusive curriculum principles developed and adopted within the curricula of other subjects. For a discussion of UID see National Centre on Universal Design for Learning (undated).

Providing relevant design activities and assessments

Achieving an inclusive curriculum design in the built environment curriculum requires changes in:

- the process (way of working), such as design briefs for assessment;
- the product (curriculum content) and taking customer needs into consideration;
- the people involved in delivering and shaping the curriculum content including clients and students.

An inclusive process benefits from the involvement of employers and users of the building and spaces designed by students studying the built environment. The curriculum content (product) can be used to raise awareness about the practical, social and emotional requirements of other users by considering issues of accessibility, usability and relevance. In effect the curriculum content can help students to think about the entitlements and requirements of a diverse customer base:

- Ricability, an independent research charity for inclusive design for older and disabled people, produces practical examples that can stimulate projects or provide a basis for discussing design implications; for example, *Making Your Kitchen Easier to Use* (Ricability, undated, see: http://www.ricability.org.uk/consumer_reports/at_home/making_your_kitchen_easier_to_use/);

— involving the views of a wide range of clients in the brief to encourage discussion about the requirements of a range of people, for example older adults, families or people with different impairments, is one way of addressing past criticism regarding the dominance of a white, male Eurocentric approach to design (CEBE, undated). For an online DVD and tutors notes see RIBA's *Inclusive Design – Creating a users' world* (RIBA, undated: <http://www.architecture.com/FindOutAbout/InclusiveDesign/InclusiveDesign.aspx>).

To help with scoping and responding to the design briefs of a more diverse customer base, course designers can benefit from involving employers, customers and students to draw on personal experience to help increase the range of perspectives considered in the built environment curriculum.

Chartered Institute of Building Professional Competencies:

1. Decision making;
2. Communicating;
3. Managing information;
4. Planning work;
5. Managing work quality;
6. Managing health and safety;
7. Managing resources;
8. Assessing environmental risk factors;
9. Managing costs;
10. Personal management at work.

(CIOB, 1997, cited by Hill, undated)

The Health Sciences and Hospitality, Leisure, Sport and Tourism subject guides provide examples for engaging end users that help to challenge stereotypes and Materials offers examples of the use of case studies.

Challenging stereotypes and celebrating diversity

To challenge stereotypical images within the sector and recognise the contribution of individuals who are currently under-represented in this area of work, subjects associated with the built environment can benefit from using examples and contacts available from Women in Architecture (WIA) and the Society of Black Architects (SOBA). These networks make a valuable contribution to the curriculum content by:

- acting as visiting speakers;
- providing real-life case studies;
- offering internships and work placements.

Inclusion is best achieved when the profile of employer and industry contributors is considered. For example, a more inclusive approach would be to invite women to speak on a variety of topics rather than dedicating a session to the contribution of women architects. Similarly, the selection of a range of case studies can allow students to select foci of interest and relevance to previous life experience and future career plans. Where the student population is not very diverse the case study examples can broaden the curriculum and encourage students to consider the implications of their design for different client groups.

Adopting a diversity of teaching and learning methods that involve a broad range of employers and clients to represent

a wider range of perspectives will appeal to a wider range of learning approaches and allow all students to benefit from adapting their response to different audiences. It will mean they can all “recognise that embracing diversity can be both challenging and unpredictable and [be] prepared to work with these challenges” (CEBE, undated: 11).

The CEBE Guide to Supporting Student Diversity in UK Schools of Architecture highlights issues arising from research relating to gender by Royal Institute of British Architects (De Graft-Johnson *et al.*, 2003) and CBE (2004) relating to ethnicity. Both indicating the challenges sometimes faced by learners in minority groups. This comprehensive report advocates a holistic approach to learners and recognises the importance of covering inclusive solutions inside and outside the classroom. Each chapter provides practical inclusive ideas such as:

- approaches to tuition that embrace and engage the experience, values and ambitions of students from a range of cultural, social, economic backgrounds;
- greater emphasis on students’ engagement in determining design agendas, developing briefs and establishing criteria for assessment;
- use of e-learning resources for part-time students, and for those learning during periods of professional experience;
- creative preparation for periods of professional experience (perhaps through use of alumni);
- clear criteria for validating courses and prescribing qualifications in architecture support a curriculum and learning culture that engages and empowers students, and promotes vitality and relevance in their education and training.

One way of empowering all students is to enable them to gain access to wider networks of students through organisations like the ARCHAOS Student Forum (undated: <http://www.archaos.org/>) and *Interconnect*, the Scottish network for women studying science, engineering, technology and the built environment (see: <http://www.interconnect.org.uk/>). This can give a sense of belonging to a wider community than a specific institution may be able to offer.

See also the Law subject guide for other examples of challenging stereotypes.

Providing more inclusive work placements and internships

A core issue for subjects associated with the built environment is the cultural context of the professions and academic programmes preparing graduates for those professions. In the built environment internships that are, paid or voluntary,

graduate-level work placements allow students to gain insights into the profession. There are many students who may benefit from a more inclusive approach to internships, regrettably “many well-qualified, talented and passionate young people lack the resources to pay their own way through an unpaid internship” (Lawton and Potter, 2010: 4). They outline a number of practical ideas for making internships more accessible to a wider group of students. Course design will not address all suggestions; however, departments can work with wider university colleagues, e.g. careers service, accommodation and employers, to implement the recommendations regarding internships. Lawton and Potter’s recommendations include:

- introducing payment to make the internships financially viable;
- reducing the costs to interns of accommodation by using ‘cheap’ university accommodation;
- advertising internships widely and in partnership with universities to make the process more transparent especially for students with no family contacts working in a particular profession;
- considering the appointment of interns through a formal application process to provide additional experience and opportunity for feedback.

It is also possible to increase the work-related experiences students acquire during their course by adopting an inclusive design approach to working with employers to develop ‘studio design’ projects that can be embedded within the curriculum and enable all students to develop the relevant skills and apply their learning to challenges generated by employers.

See also the Dance, Drama and Music, Law, and Social Policy and Social Work subject guides for further examples and discussion of work placements and internships.

Responding to professional competences

Connecting with a range of employers whose work is concerned with the built environment curriculum can be a challenge. Hill (undated) advocates the integration of professional competences into the curriculum as a mechanism for providing a list of common skills to which employers can relate. This approach helps to achieve transparency for students as well as external stakeholders and provides a context in which discussion about inclusive solutions to curriculum content and activities can take place.

The BSc (Hons) Construction Management programme at Sheffield Hallam University integrates employer needs in a

number of modules. As Hill notes, “These [competences] are appropriate not just for graduates entering the construction sector at the present time, but also in preparing them for future changes in the construction sector” (Hill, undated: 3). The programme includes the following modules:

- first year: construction process and construction management;
- second year: production organisation and information technology, measurement, and land surveying;
- third year: assessed industrial experience;
- final year: integrated project, dissertation, and construction commercial studies (Hill, undated: 3).

Using professional competences to generate solutions in the built environment is often a collaborative venture. One way of developing students’ confidence to work together and consider different perspectives of colleagues is through the use of problem-based learning. This approach may be new for some students, which may require the course to include opportunities to learn the skills of reflecting on the process and discussing ideas rather than being told by an expert.

Sheffield University uses peer group discussion to enhance all students’ experience of studio-based learning (Parnell, undated). Parnell advocates peer discussion among Architecture students to help:

- support and encourage reflection;
- develop critical thinking;
- build upon existing knowledge;
- support collaborative learning;
- encourage students to value their peers’ opinion and their own;
- support democratic education;
- encourage students to take responsibility for their own learning and build confidence.

This use of discussion is consistent with the Centre for Education in the Built Environment’s recognition that students “learn most effectively when their individual experience, interests and ambitions are welcomed and engaged in the learning process” (CEBE, undated: 11).