

Inclusive learning and teaching in higher education: a synthesis of research

Professor Christine Hockings, April 2010

Core definition

Inclusive learning and teaching in higher education refers to the ways in which pedagogy, curricula and assessment are designed and delivered to engage students in learning that is meaningful, relevant and accessible to all. It embraces a view of the individual and individual difference as the source of diversity that can enrich the lives and learning of others.

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Explanatory context

For many years in the UK the terms ‘inclusive’ and ‘inclusion’ have been used in educational contexts. In the schools sector the term referred to the extent to which students with ‘special educational needs’ (DES 1978) could be integrated into mainstream learning and teaching environments. Incorporated into the 1981 Education Reform Act, this notion of inclusion required schools to think about how they would supplement their standard provision with higher levels of support targeted at the students who needed it most. Since the introduction of the legislation, many teachers and researchers have moved away from this narrow interpretation of inclusion as being concerned with only students with special needs, not least as a backlash against the ‘crude categorisations,’ ‘segregation’ and discrimination’ that became associated with its implementation (Dyson 2005: 123). Alternative interpretations, such as that offered by Ainscow (1999), suggest that inclusive education should be concerned with ‘overcoming barriers to participation that may be experienced by any pupils’ (p.218). He defines it as a ‘process of increasing the participation of pupils in, and reducing their exclusion from, the cultures, curricula and communities of their local schools’. This notion of inclusion, he argues, ‘lays the foundations for an approach that could lead to the transformation of the

system itself (p. 219). Dyson (2003) supports this notion, arguing that ‘many children who currently experience difficulty in our schools share important characteristics and are educated in settings that themselves have similarities’. This, he continues, makes it more likely that ‘systemic rather than individual interventions’ will come to be seen as appropriate to practitioners and policy-makers (p. 125). In other words, the learning environment should change, rather than the individual.

Running through the literature on inclusive education is the notion of social justice and rights for all groups of people. Indeed in the USA inclusive pedagogy emerged from the civil rights movement as an approach to promote respect and equity for a wide range of cultural groups (Banks 2001:77, cited in Warren 2005). Rather than focus on particular groups identified by a single characteristic, such as gender, ethnicity or disability, this view of inclusive pedagogy embraces a wide range of differences and explores their effects on individual learning. This broader view is now being used more widely in the UK higher education (HE) sector with reference to learners of all ages who come from different social classes and ethnic backgrounds. It includes disabled students, students from different faith backgrounds, different cultural identities and sexual orientations. It refers to full time and part time students who come into HE with different entry qualifications, work and life experiences, different life styles and different approaches to learning. This all embracing notion of inclusion does not mean that the needs and rights of the individual are seen as having been addressed by virtue of their membership of any particular group or groups. Nor does it mean that individual identity is lost in the mix. It does mean, however, that we need to be mindful of the individual rights and needs of the ‘diversity’ of students in higher education today. The term diversity as it applies to widening participation has been discussed by Jones (2008a) in *New to widening participation?: an overview of research*. But it is a key concept underpinning inclusive learning and teaching and as such it needs some clarification here.

The notion of student diversity used in this synthesis embraces the wide range of differences described above. However, ‘diversity’ is used by some to refer more specifically to groups of students traditionally under-represented in HE, the so-called ‘non-traditional’ or ‘widening participation’ students. These include working class, mature and some ethnic minority students, often with no history of higher education in their families and often with a variety of educational and vocational qualifications. However, the categories ‘traditional’ and ‘non-traditional’ are problematic. First, while there is some overlap between the groups considered to be non-traditional, it does not mean that all these groups are necessarily disadvantaged, although the evidence suggests that many are. Second, an individual may identify with both non-traditional and traditional groups. For example, a Black 22 year old female student from a working class family background, with A levels, a vocational qualification, and the second in the family to go to university would not ‘fit’ neatly into either

non-traditional or traditional categories. So the notion of diversity as being synonymous with traditional and non-traditional is avoided in this synthesis because it over-simplifies the diversity of the student population (Bamber 2005 and 2008) and takes no account of individual difference.

The notion of the non-traditional student is also avoided here because it is often associated with a deficit view of students. Those who subscribe to this view believe that 'non-traditional' or 'widening participation' students lack the study skills and cultural capital to succeed at university. They are also believed to require additional resources and are seen as more problematic than their 'traditional' peers. For some their participation in HE is seen to have resulted in a 'dumbing down' of the curriculum and a lowering of academic standards. This deficit view of 'non-traditional' students has been refuted by many including, for example, Bamber and Tett 2001, Haggis 2006, Leathwood and O'Connell 2003, Mann 2008:79.

The category 'disabled student' is also seen as 'problematic' in the literature. Who is considered disabled, by whom and for what purposes seem to lie at the heart of this problem. The 'administratively useful' (Jacklin et al. (2007: 46) catch-all term 'disabled' can be powerful and empowering in some circumstances, yet negative and stigmatising in others. For example, in one of the key research projects on disabled students in higher education, Healey et al. (2006) argue that 'it is invidious to treat disabled students as a separate category; rather they fall along a continuum of learner differences and share similar challenges and difficulties that all students face in higher education'. However, in their report on improving experiences of disabled students in higher education, Jacklin et al. (2007: 6) found that the category 'disabled student' had 'focused minds of policy makers and brought legislative changes which had opened doors to HE and brought 'reasonable adjustments' which could be enabling. It was also useful for ensuring that tutors could identify students with impairments'. Nevertheless, they acknowledged that 'the power of the label was not always positive: it could also be stigmatising and, in addition, some students were not sure whether the category included people with their condition / impairment'. Post modernists argue that identity is shaped by many factors. A disability or an impairment may be just one factor contributing to the student's identity and it may not be the overriding factor (Ferrier and Heagney 2001; Holloway 2001).

Underpinning the concept of inclusive learning and teaching are values of equity and fairness. This means taking account of and valuing students' differences within mainstream curriculum, pedagogy and assessment. This is also one of the key principles behind the concept of 'Universal Design' which is a concept commonly used within the disability literature. Borrowed from the field of architecture, Universal Design's original aim was to inform 'the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design' (The Center for

Universal Design 1997: 1). This aim and the principles underpinning it have been applied to educational settings. Johnson and Fox (2003:14) explain that 'just as it is more cost-effective to include ramps and include accessibility into the design of a new building, it is also more cost and time effective to consider the flexibility of learning materials when designing a course than in trying to provide individual accommodations after the fact'. This approach encourages an anticipatory approach to curriculum design and embeds the view of disability as an aspect of difference that can enrich the lives of all. How this concept has been applied in practice is discussed in the main section of the synthesis of research findings.

In this explanatory context some of the concepts underpinning inclusive education have been outlined and some of the issues and discourses around identity, difference and the language of inclusive learning and teaching have been highlighted. These issues are addressed in more detail in the synthesis section. The next section summarises the findings from some of the key research reports in this area.

Key research reports

The research reported in this section has been selected from a small number of publicly funded studies that address issues of inclusive learning and teaching in HE either directly or indirectly. The findings from all but one of the studies (Gorard et al. 2006) are based on primary sources of empirical data. They are all UK-based and, with one exception (Powney 2002), published within the last five years. The reports in this section include the most current relevant research available at the time of writing. Other publicly funded projects whose outputs are practitioner orientated and developmental are included in the main synthesis section along with research published over five years ago and/or conducted outside the UK.

1. David, M. (ed) (2010) *Improving learning by widening participation*. London: Routledge.

This edited book brings together and considers the implications for policy, pedagogy and practice of a set of seven research projects on widening participation, commissioned by the Higher Education Funding Council (HEFCE) for England in 2005 under the auspices of the Economic and Social Research Council's (ESRC) Teaching and Learning Research Programme (TLRP), and completed Spring 2008. All seven projects have produced a number of outputs in a variety of formats including: ESRC project reports, TLRP Research Briefings, a joint Commentary (David et al. 2008), articles published in peer reviewed journals and as a collection in a special issue on the challenges of diversity for widening participation in UK higher education (see Research Papers in Education 2008, volume 23, number 2). Each project has its own dedicated

website where a full list of these and forthcoming outputs based on this research can be obtained. Full reports of each project are available from the social sciences repository at www.esrcsocietytoday.ac.uk/ESRCInfoCentre. See also TLRP website for further information about the seven widening participation projects and other research in higher education <http://www.tlrp.org/proj/Higher.html>

While all seven projects in this edited book raise issues of learning and teaching in higher education within the context of widening participation, only two projects (Hockings et al. and Williams et al.) focus specifically on the pedagogy and curriculum within classrooms of students from diverse social, cultural and educational backgrounds. Nevertheless the study by Crozier et al. offers some useful insights into the ways in which different learning and teaching cultures impact on working class students' 'learner identities'. Additionally, the study conducted by Hayward et al. regarding the experiences of transition to, and progress through, HE of vocational education and training students, reports interesting findings regarding the variable treatment of these students by academic members of staff. A summary of these projects and selected findings relevant to inclusive learning and teaching from these projects are outlined below.

Learning and teaching for social diversity and difference in higher education

Principal investigator: Chris Hockings (University of Wolverhampton)
Website www.wlv.ac.uk/teaching4diversity and/or
<http://www.esrcsocietytoday.ac.uk/esrcinfocentre/viewawardpage.aspx?awardnumber=RES-139-25-0222>

In this project Hockings and her colleagues explored university teachers' and students' conceptions and experiences of learning and teaching in a pre- and a post-1992 university within the context of increasing student diversity. Their aim was to facilitate the development of strategies to improve academic engagement, create inclusive learning environments and inform university learning and teaching policy and practice.

The team took a broadly interpretative approach, seeking to understand the ways in which teachers' and students' identities influence academic engagement in the classroom, but they also adopted principles of action research working with eight university teachers and their students in eight first year modules across five subject areas (bioscience, business, history, nursing and social work).

Each teacher was interviewed initially and subsequently video recorded teaching the students who were also participating in the project. The majority of these classroom observations were followed by audio recorded

individual meetings with the teachers to explore their reflections on the session and the issues arising. Teachers from both institutions also participated in a series of joint meetings to discuss engagement, diversity and inclusivity issues arising from their sessions and to consider the implications of the emerging research findings for their practice. At the end of the observation phase the teachers completed an open-ended questionnaire in which they reflected on how their participation in the project had influenced them. These formed the basis of the data on teaching practice.

Classroom observations also provided a key source of data on student participation and the circumstances surrounding incidents of apparent exclusion and isolation, involvement and engagement. Post hoc interviews with students shed light on their thoughts, feelings and experiences during these sessions and specific incidents. In addition 34 in depth interviews were held with students from these observed sessions. Around a hundred also took part in the focus group meetings set up for each module. In addition to qualitative data gathered on student engagement, over 270 students from these modules responded to a questionnaire in which they also described ways in which they felt the same as, or different from, other students in the group.

The findings from this research highlight the impact of an expanding HE system on teacher contact with, and knowledge of, their students. The researchers conclude that without this knowledge, teachers tend to base their teaching upon their beliefs and assumptions about what students do and should know and what they can and should be able to do. The evidence suggests that this leaves some students under challenged, overwhelmed or disengaged (see Hockings et al. 2008a). While teachers in this study distanced themselves from the deficit view of 'non-traditional' students and worked towards creating more inclusive classrooms, they did not always practice in ways consistent with these beliefs and good intentions. Evidence gathered for the purposes of both research and development highlighted some of the circumstances and conditions under which classroom practice included or excluded students.

The findings and implications for HEIs from this project are summarised in TLRP Research Briefing (2008) number 41. These include the following:

- students value teaching that recognises their individual academic and social identities and that addresses their particular learning needs and interests. Teachers need to develop pedagogic practices and curricula that take account of the diverse interests and needs of students in each class;
- the dominant notion of traditional and non-traditional students creates

over-simplistic understandings which limit the development of inclusive, engaging teaching. Teachers need to reflect on and (re)conceptualise their notions of student diversity in order to consider how they might redesign curricula and pedagogy to allow for greater student involvement. Academic developers need to create a climate in which teachers can debate their ideas and beliefs about students, and challenge practices and discourses that inhibit the creation of inclusive learning environments;

- university systems designed to assure quality and maximise the economic efficiency of teaching often constrain teachers' capacity to create inclusive pedagogies. University leaders and managers need to ensure that systems do not limit the learning of students from diverse cultural, social and educational backgrounds;

Principles that may be applied to the design of inclusive learning and teaching environments are explored in Hockings et al. (2010a). These include:

- creating safe collaborative spaces by setting ground rules for collaborative learning behaviour, making time to get to know students as individuals. Encouraging students to articulate their thinking openly in trusting, respectful environments allows all students to learn by getting stuck, being uncertain, making mistakes and being different;
- developing strategies for sharing and generating knowledge. This involves creating open, flexible activities that allow students to draw on their own knowledge, interests and experiences while encouraging the sharing and application of different knowledge, experiences and perspectives among peers;
- connecting with students' lives. This may involve selecting or negotiating topics and activities relevant to students' lives, backgrounds and future or 'imagined' identities;
- being culturally aware, for example by using resources, materials, humour, anecdotes that are relevant to the subject and sensitive to the social and cultural diversity of the group.

In summary, this study suggests that pedagogies that are student-centred, inclusive of individual differences, and relevant in the context of the subject are likely to extend opportunities for academic engagement to a wider range of students. See Hockings et al. (2008b) for full project report. Published papers from this project are listed in the references and bibliography sections.

Keeping open the door to mathematically demanding programmes in further and higher education.

Principal investigator: Julian Williams (University of Manchester)

Website <http://www.lta.education.manchester.ac.uk/TLRP/>

In this project Williams and his colleagues focused on the ways in which contrasting pedagogical approaches to the teaching and learning of mathematics in further education might 'open doors' to higher education and mathematically demanding careers and courses, particularly for socially disadvantaged groups. The study was about access to mathematically demanding university courses rather than university mathematics courses per se. For this reason the study focused on the mathematics programmes within five different colleges of further education and the mathematical journeys of the students who aspired to take up university courses. It draws on data gathered by a variety of research methods including a large-scale questionnaire survey, case studies and longitudinal interviews. The survey involved 1,800 students who were carefully sampled to include a high proportion of students considered "on the edge" of engagement with, and disengagement from, mathematics.

The project team looked at two aspects of mathematics as the door to higher education: pedagogic practices within mathematics classrooms and the content and design of mathematics programmes (courses). Findings from both aspects have implications for inclusive learning, teaching and curriculum. In exploring pedagogic practices used in mathematics, the project team found that, regardless of the type of programme, teachers tended to adopt a 'transmissionist' approach to teaching, involving routine and repetitive practice of examples, teaching to the test and sticking to the text book. While the culture of performance was seen as a major factor influencing the use of transmissionist teaching in this study, the project team did see some examples of 'connectionist' teaching involving discussions, group work and encouraging students' own methods. The research team summarise connectionist pedagogy as 'pointing out connections within and between mathematics, helping students connect with what they already know in mathematics and from other sources, especially each other'. The focus is on depth of understanding and engagement as being more important than being right or wrong. In connectionist classrooms learners are encouraged to 'think like mathematicians'. This approach, they argue, encourages a deep approach to learning that focuses on understanding, using mathematics and communicating its meaning to others:

“Connectionist-deep” activity requires a strong sense of teacher

agency with the teacher constructing their own highly connected mathematical narrative: while such classrooms appear student-centred, there may be a strong pedagogy ensuring that students connect in a meaningful way with the teachers' key mathematical argument.' (Wake and Pampaka 2008)

'Connectionist' methods were used primarily with low attaining students as an effective approach to building mathematical understanding and confidence. The team's survey of teaching practices indicated that a 'connectionist' pedagogy can significantly affect dispositions for further study for AS traditional students with low GCSE tiers and grades.

Another aspect of their research involved a comparison of two different mathematics programmes (a practical real world 'use of maths' programme and a traditional technique-led mathematics programme). The researchers wanted to see how these different courses influenced student retention and engagement in the subject and their effect on students' opportunities to access higher education. They found that while the 'use of mathematics' programmes widened access to the subject of mathematics among 'socially disadvantaged' groups of students, paradoxically these programmes were not recognised by many mathematically demanding courses at university. This raises a number of questions about the forms of knowledge that are valued in higher education and the ways in which these can limit access to some groups of students.

In one of the papers from this study, Hernandez-Martinez et al. (2008) focused on the aspirations of the 40 college students in the study, many of whom were 'on the edge of participation' in mathematics. Four aspirational 'repertoire styles' emerged ('becoming successful', 'personal satisfaction', 'vocational' and 'idealist') that influenced students' persistence with mathematics. Moreover, they found that students' predominant repertoire styles were strongly related to their cultural background. The authors argue that 'seeking to appeal to youngsters' aspirations and to influence their choices requires an understanding of what different aspirations exist and more importantly how different aspirations can be spoken to.' (p. 164). This suggests that teachers should develop students' subject knowledge and understanding connecting to and within the context of the students' own lives, interests and aspirations.

The overall project findings and implications for HEIs are summarised in TLRP Research Briefing (2008) number 38. These include the following:

- programme design can make significant differences to drop out rate, and to the value of mathematics for students. Programmes should be designed to engage students in meaningful uses of mathematics;

- ‘connectionist’ teaching practices can make a significant difference to students’ dispositions and understanding, especially for students with lower GCSE grades. If we value inclusion, and outcomes such as understanding and disposition, more ‘connectionist’ teaching should be encouraged;
- a culture of ‘performativity’ in colleges reinforces teaching to the test that can be damaging to learners. Policy should reduce the pressure to teach to the test by giving value to learning outcomes of deep understanding and dispositions.

A series of papers from this project are freely available from:

<http://www.lta.education.manchester.ac.uk/TLRP/academicpapers.htm>

Degrees of success

Principal investigator: Geoffrey Hayward (University of Oxford)

Website: <http://www.tlrp.org/project%20sites/degrees>

This project team investigated how people with vocational education and training (VET) backgrounds and other non-traditional qualifications make the transition to higher education. Their data show that applicants from these routes tend to come from disadvantaged backgrounds and a high proportion are male. Although this project team focused on the transition to higher education of this particular group they also explored their learning and teaching experiences during the first year of university. Their findings have implications for inclusive learning and teaching because they suggest that university teachers do not understand their particular needs nor support their transition to higher education.

Data were drawn from a combination of large scale administrative data sets collected by University Central Admissions Service (UCAS) and the Higher Education Statistics Agency (HESA). It also included data gathered by questionnaires and interviews with students from 5 different HEIs, and data generated in ‘user forums’ set up by the project team to engage with educational decision-makers and practitioners. Findings from this research and the implications for HEIs are summarised in TLRP Research Briefing (2008) number 42. A key finding relevant to the study of inclusive learning and teaching suggests that many university lecturers have limited awareness of the diverse qualification backgrounds of their students and lack knowledge of the particular needs of students from VET backgrounds.

In Ertl et al. (2010) the team compare the experiences of VET students in higher education with those who come with academic qualifications. The most important difference between them was the greater need of VET

students for individualised support and guidance that takes their particular situation and needs into account. For many VET students academic advice on how to effectively integrate their vocational background and experience into their new learning environment is central to this individualised support, yet this is not what standardised advice services at HEIs usually provide. This kind of support, they argue, can only be provided by their lecturers and academic tutors.

In chapter 7 (David 2010) the team conclude that there is a gap between what lecturers know about VET students and the way they respond to their particular needs. Even amongst the lecturers who showed high levels of awareness of VET students and a positive attitude towards them, it was still difficult for them to make students' vocational experience an integral part of their teaching.

Socio-cultural and learning experiences of working-class students in higher education

Principal Investigator: Gill Crozier (University of Sunderland)

Website:

<http://www.esrcsocietytoday.ac.uk/esrcinfocentre/viewawardpage.aspx?awardnumber=RES-139-25-0208>

In this project Crozier and her colleagues focus on the experiences of students from working class backgrounds in different types of HEI. This mainly qualitative study took place in four very different higher education institutions and focused on undergraduate students aged 18 and above in years 1 and 2 of their courses. This was 'not a study of the process of learning but rather of the interrelationship of the social and cultural with the learning experience together with the structural and organisational circumstances provided by the respective institutions'. Nevertheless some of the findings are relevant to the study of inclusive learning and teaching. These are summarised in TLRP Research Briefing (2008) number 44 and include the following:

- students' learner identities are influenced by previous experiences of school, their current university experience and their social circumstances. Students deconstruct and reconstruct their social and class identities creating hybrid identities;
- working class students should not be seen as high risk and problematic. Working class students demonstrate great resilience and commitment to their studies, often in the face of adverse structural discrimination and oppression;
- universities need to be mindful of the diversity of needs, cultures and

ways of being amongst their students, maintain high expectations of their students and enable them to maximise as broadening an experience as possible.

In Crozier et al. (2010) the project team explore the differences in the structure of pedagogy within the different types of institution based on descriptions offered by the working class students in their study. Using Bernstein's (1996) concepts of 'strong' and 'weak framing', they conclude that while 'strong framing' is associated with tight control over the learning experiences, it gives working class students who feel unprepared for university clarity of expectation and confident learner identities and behaviours that lead to success. By contrast 'weak framing' is characterised by relaxed rules of attendance, flexibility on assignment submission, fairly slow pacing and a strong move towards on-line learning. While this is intended to liberate the student and encourage independence, it had confused or frustrated some students in their study and/or encouraged them to crave tutor contact.

One of the key findings arising from this study that we can apply to the study of inclusive learning and teaching is that:

- 'The structure of pedagogy had a strong impact on students' ability to make sense of and navigate their way through the learning process and to acquire in Bernstein's (1996) terms the 'realisation and recognition rules' (Crozier et al 2010: 70)

Tight framing of pedagogic structures may enable students to acquire these rules at an earlier stage. Other relevant papers from this project include Crozier et al. 2008, Reay et al. 2009.

2. Fuller, M., Georgeson, J., Healey, M., Hurst, A., Kelly, K., Riddell, S., Roberts, H. and Weedon, E. (2009) ***Improving disabled students' learning***. London and New York: Routledge.

This book brings together the findings from a four-year ESRC/TLRP research project (2004-2007) involving 31 disabled students from four different types of university over the three years of their undergraduate studies. While non-disabled students also participated, the study foregrounds the views of disabled students themselves, providing a complex and sometimes contradictory picture of university life from students whose views and voices are not often heard. The study is set within the context of recent legislation, policy and earlier studies of disabled students in HE. It aimed to address the key questions:

- how do disabled students in specific institutions experience teaching, learning and assessment practices in particular subject areas?

- how do changes in teaching, learning and assessment affect their performance and outcomes over time?

A variety of mainly qualitative data were gathered by a variety of means including survey, document analysis, interviews over time leading to longitudinal individual case studies, interviews with academics, senior managers and other staff, and degree outcome data from institutional data bases. While institutional data allowed an analysis of retention and degree outcome of disabled compared with non disabled students in the case study institutions, it was not possible to carry out a cross variable analysis by social class, subject studied, gender or age, nor was it possible to carry out an analysis by impairment.

The research focused on tensions within widening access policy and practice for disabled students. It explored disabled students' experiences of reasonable adjustments in teaching and learning, assessment, and curriculum. It also covered issues surrounding disabled student identity, transitions and organisational structures for support. Findings from this study are discussed in the final chapter of this book and summarised in the full report of the project (Fuller et al. 2008, available from www.esrcsocietytoday.ac.uk/ESRCInfoCentre). Key findings from the report of this project of relevance to inclusive learning and teaching include the following:

- little progress had been made in relation to allowing students to demonstrate mastery of learning outcomes through alternative forms of assessment. Most adjustments were 'formulaic' e.g. allowing extra time in examinations;
- disabled students reported particular difficulties in obtaining the adjustments they had been assessed as needing. Communication between the central disability service and individual tutors was often problematic;
- many disabled students, particularly those with mental health difficulties, were particularly vulnerable to stress and academic failure at transition points such as the beginning of a new course or the start of an exam period;
- disabled students were particularly likely to be studying creative arts and design subjects and to be under-represented in vocational courses such as medicine, teaching and nursing, where professional bodies impose fitness to practise standards;
- disabled students' degree outcomes were generally poorer than those of non-disabled students.

To circumvent the problems highlighted in this study, the research team offer the following recommendations:

- there should be a greater focus on the development of inclusive curricula, based on the principles of Universal Design. This would also circumvent the problem of students having to disclose a disability in order to obtain additional support. However, it was also recognised that some students would always require very specific individual adjustments;
- fitness to practise standards should be replaced by professionals' standards. Reasonable adjustments should be made for disabled students in order to enable them to comply with these standards¹;
- more attention should be paid to the social and emotional aspects of learning in higher education, including additional support for vulnerable students at points of transition.

Other findings from this study suggest that disabled students find it helpful to have lecture notes in advance and prefer a mixture of learning and teaching strategies. These are not new findings but the evidence in this study supports practices that are appreciated by disabled students. As with many adjustments made for disabled students, these also benefit non-disabled students. Indeed it is also important to note that the barriers that some of the disabled students experienced in this study were not so different from those experienced by their non-disabled peers.

3. Hounsell, D., Entwistle, N., Anderson, C., Bromage, A., Day, K., Hounsell, K., Land, R., Litjens, J., Mccune, V., Meyer, E., Reimann, N. and Xu, R. (2004) *Enhancing teaching-learning environments in undergraduate courses (Project Report on L139251099)*. Economic and Social Research Council / TLRP

This four year ESRC/TLRP funded project (see website <http://www.etl.tla.ed.ac.uk>) aimed to explore the idea of constructive alignment as a way of working with departmental colleagues in six particular subjects across the pre and post 1992 sector. The aim was to strengthen the teaching-learning environments (TLEs) experienced by undergraduate students and to enhance engagement, motivation, learning processes and outcomes, and levels of achievement. The findings from this study were based on the statistical analysis of 6,488 questionnaires (providing a complete set of data for 1,950 students) and the more grounded thematic analysis of interviews with 668 students and 90 staff. Over the course of this project, issues of student diversity, including differences in prior subject knowledge, emerged as

¹ There are two kinds of standards: fitness to practice and competence standards. HEIs cannot make reasonable adjustments to competence standards.

‘problematic’. The concept of ‘congruence’ is used in this study as a framework for investigating aspects of the learning and teaching environment that reflects contemporary mass higher education. Congruence is the interrelationships between high-quality learning outcomes and the strategies deployed to pursue these outcomes. The ‘dimensions’ of congruence include: teaching-learning activities, assessment and the provision of feedback to students, students’ backgrounds and aspirations, and course organisation and management.

Although there have been a number of published outputs from this project (see project website), one (Hounsell and Hounsell 2007) is particularly relevant to inclusive learning and teaching. This paper presents data from the study analysed according to the dimensions of congruence. It focuses on the teaching of large groups of first year students because:

‘Congruence with students’ backgrounds, knowledge and aspirations emerged as potentially problematic in first-year courses with the large, diverse intakes and outflows characteristic of contemporary mass higher education.’ (Hounsell et al. 2004:7)

They consider various strategies used by teachers in the study to engage the diverse needs and interests of students at different levels of study and in different subjects. These strategies include projects, group-based practical activities designed to promote peer interaction and support, self-test question banks and the use of supplementary learning–teaching resources. Nevertheless, they found that:

‘...students from traditional backgrounds had generally found their first year as undergraduates relatively ‘plain sailing’, some of their non-traditional counterparts had struggled to cope with study demands.’ (p. 106)

This differential experience of higher education occurred despite the use of strategies designed to engage students and ‘give them a feeling of belonging to a group’ (p. 106).

Commuting to university, part time work and constantly being expected to have ‘done’ something at A level when not all students had done A levels, were some of the hurdles that mature, overseas and economically poorer students reported. Interestingly the teachers did not seem to see these as problems that they could fix to accommodate the students, rather they focused on the ‘challenges posed by these more diverse student intakes’ and ‘the practical constraints’ (p. 106) of meeting students’ needs.

4. Powney, J. (2002) *Successful student diversity: case studies of practice in learning and teaching and widening participation*. 2002/48: Higher Education Funding Council for England (HEFCE).

The purpose of this document is to provide examples of practice, identify common principles and improve strategic planning in widening participation and associated learning, teaching and assessment. Although published in 2002, this report is included here as one of the few evaluations of inclusive practices across institutions. Drawing on 23 institutional case studies, Powney identifies and illustrates factors that positively or negatively influence the long term impact of initiatives and strategies to support greater inclusivity in learning and teaching. The case study institutions are not identified in this report nor are they described in terms of the diversity of their student and staff population. However, readers are referred to the full case studies available as separate documents from the HEFCE website. See http://www.hefce.ac.uk/pubs/hefce/2002/02_48/cases.htm.

The report is structured around four themes: 'drivers for change', 'the students,' 'mainstreaming' and 'planning and supporting lifelong learning'. External drivers for change (e.g. legislation and directives, supply and demand) and internal drivers (e.g. restructuring) are identified as influencing the successful embedding of practices for student diversity. Six models emerged from the case studies that reflected institutions' governance, structures and processes for the development, communication and implementation of widening participation strategies. These were described as:

- Model one: Institutional strategy, department operationalising, central education unit facilitating;
- Model two: Institutional strategy resulting in direct support for departmental initiative;
- Model three: Institutional strategy implemented through general devolution of resources to departments;
- Model four: Institutional strategy implemented through devolution of resources to departments for specific purposes;
- Model five: Institutional strategy developed in partnership or requiring partnership;
- Model six: Institutional policy/strategy not necessarily consistent with departmental practices.

Powney compares and contrasts these models noting that:

'Priorities are reflected in the HEI's structures and resource allocation, and in the degree and nature of central support compared with devolved management and financial responsibility.' (p. 12)

Additional drivers for change include departmental initiatives, institutional research, student feedback and the impact of a 'champion' for widening participation issues. Training and continuing professional development that required an engagement with some aspects of student diversity also provided a driver in some institutions.

The section on students briefly touches upon ways in which HEIs have attempted to take account of the different needs and interests of their diverse students when designing courses. Learning outcomes, language and teaching materials are briefly mentioned as requiring possible adjustment but there is little discussion of pedagogy beyond this. The report highlights the tensions between academic and welfare roles, tension among staff competing for limited resources and the pressure on staff coping with the plethora of new initiatives while trying to sustain and embed old ones.

While this report gives a flavour of how some HEIs are attempting to ensure all students succeed in university, the strategies and initiatives described in the case studies have not been evaluated, largely due to the absence of robust annual monitoring data from the HEIs themselves. However, a number of principles and recommendations relevant to inclusive learning and teaching emerge from this good practice guide, some of which are reproduced below:

- viewing all students as potentially in need of some study support, so that disabled students are not singled out;
- assessing the skills and needs of students as soon as possible to determine the nature of support needed at vulnerable points in their student careers;
- not under-estimating students who have a weakness in conventional learning/assessment techniques. They are likely to be at one end of the continuum of all students and challenge the efficacy and wisdom of traditional teaching and assessment methods;
- establishing mentor schemes, including peer mentoring, for students to gain from each other's experiences and share resources. Designing programmes that are student-centred, with academic guidance focusing on:
 - needs, progression and achievement;
 - providing student support within the context of a subject;
 - ensuring flexibility in modes of access and attendance, teaching and learning methods and assessment;
 - Exploiting students' experiences and knowledge outside academia.

See also Synthesis of Research Findings, section 4 below, for additional recommendations from this research relating to leadership and management.

- 5 Shaw, J., Brain, B., Bridger, K., Foreman, J. and Reid, I. (2007) ***Embedding widening participation and promoting student diversity. What can be learned from a business case approach?*** Higher Education Academy.

This report provides the findings from a Higher Education Academy commissioned research project into the drivers, benefits and costs of embedding widening participation and promoting student diversity with the aim of presenting factors that may contribute to a 'business case' for widening participation and diversity.

The case for widening participation and promoting diversity is made drawing on organisation and management literature on diversity and equality as well as the educational widening participation literature. Concepts of diversity and equal opportunities are explored, compared and critiqued. The business benefits of widening participation and 'diversity' include 'improved learning outcomes for all students' (p. 41) and more innovative learning, teaching and assessment (pp 47-50). Among the costs and potential consequences, high drop out rates, erosion of standards, need for special support, etc. are cited. Primary research, conducted at a number of levels and in a number of areas of HE activity, focused on rationales for widening participation, approaches and barriers to, and the embedding of, widening participation and diversity. Eight HEIs were selected by theoretical sampling to represent a) the diversity of HEIs in the sector and b) those considered to be successful when judged in relation to the Higher Education Statistics Agency (HESA) performance indicators for widening participation and diversity. Case studies were then drawn from the collection of data gathered in each HEI. Data included interviews with academics, marketing staff, students and student representatives, senior managers, widening participation outreach, admissions staff and so on.

Overall the benefits and costs identified by interviewees broadly reflected the views of stakeholders in the literature review. With regard to the benefits, interviewees said that widening participation and diversity resulted in more innovative teaching, a source of different knowledge, an enriched social and cultural environment and improved learning outcomes for all. Some believed that 'better' teachers were needed to teach diverse groups of students (p. 96) and that 'bad' teachers would 'get caught out'. One academic explained:

"It is also...you have adjust to learning and teaching style to be inclusive...well, for example, in group-work I'm always conscious of how I'm breaking groups up and being culturally aware that some students because of a WP agenda need your encouragement, as the lecturer, for them to be involved. For example, asking questions that you know they know the answer to and drawing on their experience so you do have to use good classroom management and techniques. You have to draw on a wider range than if you had a white 18 middle class group." (Academic

staff, Institution F) (p. 116)

The need for 'better' teaching was seen as a driver for seeking professional development. Pragmatists saw widening participation as a way to recruit to an unpopular course.

With regard to the costs, some stakeholders believed that students from 'WP backgrounds' required higher levels of support and made greater demands on teaching staff than traditional students. This was referred to as 'academic pro-bono support'. In addition they believed that widening participation and student diversity created extra work in making the official curriculum more inclusive. There was general agreement from staff working closely with students that there was not enough recognition for this 'extra' work. In terms of standards there was a strong 'dumbing down' discourse running through this section coupled with concerns about league table positions, particularly in the pre-1992 universities (p. 107).

In relation to course development, universities described as 'academic' tended to develop new courses that would attract lucrative income (e.g. professional courses or those aimed at an overseas market) and those that would not affect their academic culture. These institutions did not feel the need to develop courses to address the needs of 'widening participation' students. Other HEIs took a pragmatic 'differentiation' approach to course development in which some elements of the course would be targeted at students from under-represented backgrounds (e.g. Foundation Degrees) while the rest of their provision might not be so concerned with meeting this widening participation objective. Institutions who saw themselves as 'widening participation' institutions also took a differentiation approach but they tended to tap into local communities, local employers etc. to provide vocational training such as the NHS.

The final chapter of this report summarises the key findings from the case studies. The authors argue that HEIs had different understandings of widening participation and diversity, different ideas about embedding widening participation and little understanding of the concept of the 'business case' for widening participation and student diversity.

This report is concerned with diversity, inclusivity and whole organisational transformation. The findings are discussed in more detail in section 4 of this synthesis (Institutional commitment and management). In terms of inclusive learning and teaching, however, there is very little discussion of pedagogy and assessment and only limited discussion about course design. The authors argue that this is because:

'...there is only very limited evidence (and none from the UK) on the impact of a greater student diversity on teaching and learning outcomes,

though many of those interviewed assumed that the impact was positive, or that it was 'good for' the students... If positive impacts were more firmly established this would provide a persuasive driver for embracing greater student diversity and one that would be of particular interest to academic staff.' (p. 133)

- 6 Gorard, S., Smith, E., May, H., Thomas, L., Adnett, N. and Slack, K. (2006) ***Review of widening participation research: addressing the barriers to participation in higher education.***: A report to HEFCE by the University of York, Higher Education Academy and Institute of Access Studies.

This review of the research literature on widening participation focuses on what are considered the 'barriers' to participation. It has been helpful in mapping the field of widening participation research in the UK in particular. It also contains many useful references to studies that are relevant to inclusive learning and teaching in HE.

The report covers research into various aspects of, and interventions during, the different stages of the student lifecycle (pre entry, access, transitions, withdrawal, progression, employment and further study). It brings together material on supporting student success (academically, socially and in specific 'non traditional' groups, e.g. disabled students, ethnic groups, etc.). It considers research on the impact of widening participation on institutional structures and staffing and policies, and highlights some of the research that calls for institutional development to improve current provision for under represented groups. The reviewers also acknowledge the small amount of research suggesting that more fundamental change is required across all aspects of higher education in terms of institutional culture, ethos and values.

While there are issues relevant for inclusive learning and teaching generally in each section of the report, section five, Learning and teaching in higher education, is most pertinent here. This section covers the learner in higher education, teaching in higher education, curriculum design and development, and assessment and feedback. Many of the studies reviewed describe ways in which curricula have been changed to attract students from groups not traditionally represented at university. However, they also note the criticism emerging in some of these studies that universities are not sufficiently proactive in their commitment to valuing different forms of diversity.

Although this review focuses on widening participation, it nevertheless identifies a number of gaps in the evidence base around inclusive learning and teaching. While much of the literature highlights the specific needs of certain groups of students, the reviewers note that there is little evidence that teaching approaches are being adapted for diverse learners. Key themes emerging from their review suggest that a 'deficit model' of 'non-traditional' students is prevalent amongst teachers and that this leads them to offer 'compensatory'

approaches. One of the examples of this involves separating students from 'non-traditional' backgrounds and providing them with generic skills instruction to bring them up to the standard of others. However, they argue that there was little evidence that this was appropriate or effective.

In terms of assessment, the research reviewed suggests that some groups of students (e.g. students with particular impairments and those with vocational qualifications) experience difficulty with some of the forms of assessment traditionally used in higher education. Varying the forms of assessment and methods of teaching was seen to benefit all students, not just those from particular target groups. However, the reviewers found little evidence in the literature of universities adapting their assessment methods to cater for the diverse educational backgrounds of their students. Much of the literature showed the emphasis on students adapting to learning at university rather than universities adapting to cater for the diverse educational backgrounds of their students.

The studies that have been outlined in this section and the key issues identified are discussed further in the synthesis section below with reference to a broader range of inclusive learning and teaching literature.

Synthesis of research findings

This section draws upon a range of studies in areas related to inclusive learning and teaching to explore key themes, principles and practice. In the UK there is a small but growing body of research that focuses specifically on inclusive learning and teaching as defined in the core definition. The research included in this section is drawn from this but also from the related literatures of widening participation, disability equality in higher education and the more general literature of learning, teaching and assessment in HE. It includes literature reviews, case studies, and theoretical as well as practitioner research, some of which is international. While every effort has been made to include research that reflects the current state of inclusive learning and teaching research in the UK and elsewhere, the papers referred to in this synthesis are illuminatory rather than exhaustive of the field. Readers are also referred to related research syntheses commissioned by the Academy on student retention and success (Jones 2008b); the internationalisation of UK higher education (Caruana 2007); disability equality in higher education (Rickinson, forthcoming); and improving the retention and success of Black and minority ethnic students (Singh, forthcoming).

This synthesis is divided into four sections focusing on curriculum design, curriculum delivery, assessment and institutional commitment to and management of inclusive learning and teaching.

1. Inclusive curriculum design

This involves the design, planning and evaluation of programmes, courses and modules not only in terms of their learning outcomes, content, pedagogy and assessment but also in terms of the ways in which they engage and include the needs, interests and aspirations of all students. This section is organised around four key themes emerging from the research on curriculum. These are: models of curriculum design; knowledge power and subject choice; the customised / customisable curriculum; and technology, inclusivity and curriculum design.

1.1 Models of curriculum design

While there are many models of curriculum design, Bigg's (2003) model of constructive alignment is a particularly popular framework with academic developers and used as a tool for curriculum development in many continuous development programmes for lecturers in HE. The model comprises five components of a teaching system: 1) curriculum objectives, 2) teaching methods, 3) assessment procedures, 4) the climate we create in the interactions with our students, and 4) the institutional climate, the rules and procedures we have to follow. By defining the curriculum objectives clearly at the outset and setting the levels of understanding expected for each, Biggs argues that teaching methods and assessment tasks can then be specifically selected or designed to bring about the intended outcome. Thus they are constructively aligned. Biggs suggests that any 'imbalance in the system will lead to poor teaching and surface learning' and that 'non-alignment' will result in inconsistencies, unmet expectations, and practices that contradict what we preach (p. 26). While technically appealing, the model overlooks one of the key components in the process; the students and the diversity and differences they bring. Recognising this limitation, Hounsell et al (2004) attempted to adapt Biggs' model to reflect 'congruence with students' backgrounds, knowledge and aspirations' (2004:7). Others have taken the student as their starting point for curriculum design, understanding that the 'common challenge is to develop models that can cater for a more heterogeneous student population and yet are suited to different academic and professional domains' (Warren 2002: 86). For example, Caruana and Spurling (2007) in their review of the literature around internationalisation in higher education, suggest that an 'infusion' approach to curriculum design not only takes account of cultural pluralism in the selection of course content (De Vita et al. 2003) but also encourages staff and students to think critically about their own values and biases which, they say, 'engenders 'inclusive strategies' and flexibility allowing for negotiation of assessment tasks between students and lecturers and the 'linking' of assessments' (Caruana and Spurling 2007: 65).

In his study of approaches to curriculum design in the context of widening participation in the UK, Australia and South Africa, Warren compares 'separate', 'integrated' and 'semi-integrated' models. The separate model focuses on the needs of 'non-traditional' students with the assumption that these students require special attention. Additional forms of support, such as study skills

interventions, that run alongside or prior to mainstream, content-focused modules, are a common feature of curricula designed in this way. By contrast the integrated approach targets all students and assumes that ‘students bring varying cognitive, linguistic, knowledge and cultural resources to the learning situation’ and that they need to be guided to ‘develop the critical and communicative skills and conceptual repertoires that will enable them to deal with academic tasks’ (p 87). The emphasis here is on meaning making and the construction rather than acquisition of knowledge. These goals are embedded within the context of the subject and within the mainstream curriculum. The semi-integrated approach is based on the same assumptions as the integrated approach with additional support offered alongside. This support is ‘closely articulated with the rest of the curriculum, so that it is developmental rather than ‘remedial’, and appropriate to the subject domain’ (p88). Warren concludes by proposing a three-dimensional approach to curriculum design in which ‘skills’ are embedded as ‘process knowledge’ in subject based teaching, learning and assessment; where there is space within the curriculum for ‘less-prepared students’ to develop fundamental skills; and where further individual help with discipline-specific needs is provided. This approach to curriculum design is analogous to the ‘inclusive approach’ to assessment advocated by Waterfield and West (2006) in so far as it removes the stigma of ‘special arrangements’ for less-prepared or disabled students (see also section 3 Inclusive Assessment).

One of the outcomes from the Enhancing Teaching-Learning Environments in Undergraduate Courses (ETL Project) (Land et al. 2005) offers an inclusive curriculum design perspective based on threshold concepts. In their discussions with subject experts and students the research team found that there were particular concepts within subjects that often presented emotional, cognitive and sometimes psychomotor difficulties of mastery. Drawing on Perkins’ (1999) concept of troublesome knowledge, they offer a curriculum design approach that supports learner discomfort and instability through the provision of a ‘holding environment’. This environment recognises learning as requiring an ontological as well as a cognitive shift in the learner. See Orsini Jones (2009) for a case study of this approach for post-1992 university language students.

1.2 Knowledge, power and subject ‘choice’

What knowledge is included in the curriculum, who selects it and why are important questions when it comes to designing inclusive curricula. Apple (2000, reproduced in Ball 2004:181) argues that ‘what counts as legitimate knowledge is the result of complex power struggles among identifiable class, race, gender and religious groups’. These factors are hidden within the curriculum but their influence is manifested in subject participation patterns and student educational and career trajectories. In her critique of the curriculum since widening participation, Quinn (2006) probes the questions of knowledge production and curriculum change in light of the new forms of knowledge and the different perspectives that students might bring to

institutions. She questions the omission of curriculum change from key educational policy documents around widening access and asks what effect this lack of interest in the higher education curriculum produces. The study was conducted in two HEIs where widening participation was a priority, and across a range of subjects. Based on data gathered from the twenty one women participating in this study, Quinn found that for working class women in particular, the HE 'curriculum could be alienating and disempowering in that they were either invisible or presented in terms of lack'.

De-representation and self-marginalisation of 'queer science students²' were among the issues explored by Toynton (2007). He argues that because science is concerned with classifying the living world into species whose members breed with one another to produce offspring, same sex attraction can be perceived as rendering individuals 'marginal', 'redundant' or 'unclassified'. Furthermore, unlike many social science subjects, discussions about sexuality and gender are seen as irrelevant to the subject. This, Toynton argues, leaves queer students with feelings of low self-esteem and burdened with the emotional labour required to maintain invisibility. These were among the reasons why some queer science students 'self-marginalise'. He calls for more involvement of scientists in the discussions around queer identities in science in order to remove the layer of marginalisation that disrupts learning.

In her study of students' subject choices and their consequences, Francis (2006) argues that patterns of curriculum subject preference and uptake reflects persistent gender inequality. Using data from HESA and JACS (Joint Academic Coding System) databases 2004, she demonstrates the gendered patterns of participation in a range of subjects in higher education. The trends show that women predominate in the humanities, creative arts and social sciences. Women also dominate in biology at undergraduate level and are in the majority in subjects allied to medicine, such as nursing and physiotherapy. Men on the other hand outnumber women in engineering, computer science and mathematics. These participation patterns 'reflect the gendered construction of subject areas as masculine or feminine, and hence as more appropriate for one gender or another' (p. 59). Drawing on the work of others (Mirza 1992, Biggart 2002, Francis and Archer 2005), Francis (2006) adds that 'these "choices" are also heavily 'raced' and classed' (p60). She notes that in terms of social class, working class young men and women tend to follow low status vocational routes (e.g. nursing) rather than academic or high status professional routes (e.g. medicine). As others have shown (Leslie et al. 2001, Hoelscher et al. 2008) many vocational qualifications can limit access to certain types of higher education and academic courses that lead to lucrative careers.

While vocational courses seem to be the route of choice for many working class and some ethnic minority students, Fuller et al. (2008, 2009) point out that

² Toynton adopts the 'definition of queer as an umbrella term to anyone who feels marginalised as a result of their sexuality or problematised gender status' p. 595.

disabled students are under-represented in vocational courses such as medicine, social work, teaching and nursing. It is in these subjects that professional bodies have imposed 'fitness to practise' standards that exclude students with some impairments from full participation. With reference to two case studies in initial teacher training, Riddell and Weedon (2009a) expose the ways in which fitness to practise standards work against disabled students on a number of levels. In this paper, they consider the implications for students who choose not to disclose a disability and those who do. They also compare the situation in Scotland, where the fitness to practise standards have been abolished as an entry requirement to teach, with that in England. Subjects that include substantial off-campus activities such as fieldwork are also seen as a barrier for some disabled students (Hall et al. 2004, Baron et al. 1999). However, in recent years there has been considerable effort to remove these barriers and a number of good practice guidelines and principles have been produced for designing out these barriers. See for example Gravestock 2006a and 2006b plus guidelines and resources on Higher Education Academy Subject Centre websites, for example Geography, Earth and Environmental Sciences (GEES): <http://www.gees.ac.uk> and the Psychology Network <http://www.psychology.heacademy.ac.uk/>. See also Fell and Wray (2006) on supporting disabled students on placement.

1.3 Customised / customisable curriculum

The studies reviewed so far focus on the ways in which the design of the curricula can exclude certain students. Some advocate scrutinising the 'hidden curriculum' for knowledge that privileges some while claiming neutrality (Bowl 2005, Johnson-Bailey and Cervero 2004, Solar 1995). Other studies, however, focus on what can be done to make curricula more inclusive. In their review of the literature on the barriers to widening participation, Gorard et al. (2006) highlight a number of projects in which curricula were designed to include the specific interests of the target group. Pickerden (2002), for example, used a dynamic curriculum design approach in a community based education project that was responsive to the changing needs and interests of the individual communities. Jones and Cop (2004) talk about the importance of student participation in the process of curriculum design in their community project in the Welsh valleys. In a personal narrative of pedagogical practices and 'Othering' in the teaching of research methods, Koro-Ljungberg (2007) explains the ways in which politics are embedded in all elements of the curriculum, shaping 'questions and statements ... as well as enquiries that are silenced as unacceptable in traditional classrooms' (p. 742). For this reason she negotiates the content of the curriculum with students by offering choice of topics, classroom activities, readings and assignments, mindful of the fact that in many ways she still controls their choices.

The cases in the edited book by Crosling et al. (2008) provide examples of innovative inclusive curriculum designs aimed at developing and retaining

students for whom existing curriculum design has failed in some way. For example, concerned about the high drop-out rates and poor grades of foreign and minority ethnic students in six universities in the Netherlands, Wolff et al. (2008) describe changes to the economics curriculum made specifically to address issues that students identified as problematic. These changes included breaking down subjects into smaller components, each focusing on a central theme, and setting up 'activating working groups' (i.e. small groups of students) to work on specific projects or assignments per course component. Membership of these groups changed for each component to ensure that students were studying with different peers in each period. These working groups were seen as key to enhancing the social embedding of individual students into the academic setting. In their overall analysis of the cases presented in this edited book, Crosling and her co editors (2008) conclude that curricula should be developed, first, in response to students' needs, backgrounds and expectations. Second, they should promote academic and social engagement through, for example, induction programmes, collaborative learning, new curriculum content and increased communication between staff and students. Third, they should encourage active learning in which students take responsibility for their own learning, learn from their own experiences, collaborate with others and learn from formative feedback.

The studies discussed so far in this section focus on designing or adapting curricula to meet the requirements and engage the interests of specific groups of learners. However, an alternative approach is to design curricula that learners can customise to suit themselves, thus minimising the need for last minute (or individual) adjustments and avoiding the need for students to disclose hidden differences. This approach not only means involving students in the development of the curriculum, but also anticipating their diverse needs and requirements, and designing in flexibility. These are the principles underpinning 'Universal Design.' As outlined in research report 2 above, the concept of Universal Design comes from the field of architecture and has been adopted by those involved in the research and development of curricula for disabled students (see for example Higbee 2003, Hall and Stahl 2006). However, as its name suggests, it is not just a design approach for disabled students, but for all students. Indeed, Barajas et al. (2003) believe that Universal Design can create an 'expanded vision of inclusion' that places the education of all individuals at the heart of what we do in higher education. Critical of the assumption that the core curriculum, classroom policies and practices are neutral in terms of the gender, age, ability, race, home language, religion and social class of the student, they call for critical reflection on what we do and how we think. Such a 'paradigm shift' is needed, they argue, 'otherwise we end up believing we have created a universal design because we have added some information to our classroom strategies, but few of us have substantially restructured our thinking, practices, and policies'.

Universal Design holds great promise but, as Bruch (2003:99) reminds us, 'no

single curricular mode can achieve universality and serve all students equally.’ Reflecting on her use of Universal Design in a basic writing course in an American university, Bruch concludes pragmatically that ‘classes must be built to work towards contingent universality of serving the students that are actually there.’

1.4 Technology, inclusivity and curriculum design

For many institutions, e-learning (i.e. all forms of Technology-Enhanced Learning (TEL) or very specific types of TEL such as online or Web-based learning) has become an essential tool for the learning and teaching of large numbers of diverse students. Indeed Forman et al. (2002) maintain that e-learning can act as a catalyst for educational diversity, freedom to learn and equality of opportunity. They also argue that e-learning not only encourages diversity but also that ‘it paradoxically creates programmes that are more specifically tailored to the market needs than traditionally validated programmes’ (p. 76).

Many universities are now dependent on Virtual Learning Environments (VLE) and other technologies such as e-portfolio (Hughes and Purnell 2008) and mobile learning (Traxler 2004) as a means of ‘delivering’ parts of the curriculum and supporting student learning. Much of the e-learning research describes the ways in which a curriculum rich in e-learning not only enhances learning but also makes it available to students who, for many reasons, cannot physically attend university (see for example Hegarty et al. 2000, Taylor 2008). Some of the benefits of e-learning for disabled students’ learning are discussed by Newland et al. (2006) and Seale (2006).

Despite the benefits of e-learning, there is considerable concern that an over-emphasis on e-learning can result in feelings of isolation and alienation (Alexander 2006, Crozier et al. 2010, Hughes 2007, 2010), frustration or dissatisfaction with the e-learning experience and high drop out (Levy 2007). Alexander (2006), in his study of virtual team work in large groups of culturally and linguistically diverse students in South Africa, argues that ‘it is important to take cultural factors into account in learning as proposed by the socio cultural model’ and that ‘individuals and minorities are allowed to develop mental models within their own context’ (Alexander 2006: 128). There is also some evidence that use of VLEs can hinder students who might already appear ‘disengaged’ (Maltby and Mackie 2009).

In terms of curriculum design, there are a number of publications that offer research and practice based guidelines and case studies for developing on-line or blended learning courses in higher education (see for example Bostock 1998, Carr-Chellman and Duchastel 2000, and Laurillard 2001). Garrison and Vaughan (2008) develop the notion of a community of inquiry that underpins their framework. Like most blended learning designs the aim here is to support connection and collaboration among learners to create a learning environment that integrates social, cognitive and teaching elements for sustained critical

reflection that goes beyond the campus. Other frameworks for curriculum development through blended or e-learning include the London Pedagogy Planner (San Diego et al. 2008). This prototype for a collaborative online planning and design tool supports lecturers in developing, analysing and sharing learning designs. It is based on the basic design principles of educational technology but aims to engage lecturers in a more reflective design process. This planning tool incorporates many important features of the learning design process, including 'a way of capturing the context of learning design that can be easily understood, interpreted, evaluated and shared'; and 'a way of ensuring coherence between each of the components of learning designs such as topics, outcomes, methods, tools, staff resources and student workloads' (p.16). However, while e-learning approaches and frameworks offer the promise of a curriculum that can support a diverse student population, it is not explicit in the frameworks outlined here how students' diverse knowledge, interests and backgrounds are brought into the design process.

2. Inclusive curriculum 'delivery'

This section focuses on research into the ways in which teaching approaches, methods, materials, equipment and other resources are brought to bear on the implementation of the curriculum and the engagement of all students with it. While there is a large amount of research in the general area of learning and teaching in higher education, there is a relatively small amount of empirical research that specifically focuses on the learning and teaching of diverse students in the context of mass higher education. Of this small body of research, some have explored, in fine detail, what goes on in classrooms of diverse students across a range of subjects and in different types of institution (see for example Brennan et al. 2008, Hockings et al. 2010, Malcolm and Zukas 2007). Others have focused on the learning and teaching of particular groups of students within particular disciplinary areas. A selection of those that illustrate particular issues or aspects of inclusive learning and teaching are summarised here.

2.1 Pedagogies for diversity, commonality and inclusivity

In Queensland, Australia, Bowser et al. (2007) examined three case studies of three different teaching approaches (experiential learning, transformative learning and culturally-situated pedagogy) used with three different groups of students (indigenous Australians, pre-undergraduate students and international students respectively) with the aim of exploring the dynamic tension between commonality and diversity. Experiential learning, as defined by Weil and McGill (1989) (cited in Bowser et al. (2007), is the process whereby people engage in direct encounters and then purposefully reflect upon, validate, transform, give personal meaning to and seek to integrate their different ways of knowing. This approach was adopted in the first of the case studies. It was considered particularly well suited to working with indigenous Australian students whose own life experiences, group history and role in society formed the foundation for ongoing learning that could be validated and transformed as alternative

ways of knowing and being. Transformative learning, derived from principles of adult education and perspective transformation, was used in the second case as the approach through which 'failed learners' could transform this negative view of themselves and instead see themselves as capable of succeeding in the university environment. The third case focused on culturally-situated pedagogy for the teaching of international students. This approach 'highlights and celebrates the centrality of culture in framing students' engagements with and understandings of the world, while recognising the specificity and locatedness of each student's cultural positioning as a learner, citizen, community member, and so on' (p 677).

Based on their analysis and synthesis of these cases, the authors conclude that all three pedagogies were generally successful in celebrating and valuing students' diversity as well as contributing to the elements of commonality required of neoliberal, market-based Australian universities (i.e. academic literacy, integrity, course profiles, generic skills and graduate attributes). The authors suggest that these pedagogies have wider application in the mainstream struggle between 'difference and sameness, heterogeneity versus homogeneity, opening up versus closing down dialogue, understanding and respect versus incomprehension and derision towards otherness...' (p. 679).

In a study that focused on improving student retention, persistence and completion in higher education in seven tertiary institutions in New Zealand, Zepke and Leach (2007) describe the teachers' conceptions of student diversity and examine the influence of these conceptions on their teaching of socially and culturally diverse student groups. While they found a general disposition towards 'adaptation' amongst teachers (i.e. valuing and accepting diverse cultural capital), there was a 'sizable minority' that took an 'integration' view of student diversity, preferring to assimilate students into the existing academic culture. This minority rejected the notion of different treatment for different students or 'adapting their practice to recognise cultural capital that was not European and academic' (p. 660). Zepke and Leach's analysis of the teaching strategies used to accommodate student diversity correspond to the inclusive teaching strategies identified in other studies (e.g. Hockings et al. 2010). These include building groups, establishing rapport, drawing on students' and teachers' own stories and examples to make theory as real as possible, making connections with students and creating an environment in which students can learn from mistakes and feel that they belong. This study highlights the importance of including materials, resources, references and images that reflect the social and cultural diversity of the group. Teachers in this study also found that using a variety of innovative teaching methods and approaches enabled students to learn in their own preferred ways.

While student-centred pedagogies, with their emphasis on collaborative learning, are generally accepted as effective in encouraging students from different backgrounds to engage in learning in higher education (Bamber and

Tett 2001, Haggis 2006, Haggis and Pouget 2002, Thomas 2002), not all students feel comfortable learning in these ways. For example, De Vita (2000) argues that the fear of not being understood and, in the extreme, of being subject to ridicule, are the most common barriers to participation in classroom discussion experienced by international students. His study suggests a range of strategies to help international students overcome this fear. Madriaga et al. (2007) found that group working could cause increased anxiety in students with asperger's syndrome or other forms of autism. This was possibly due to their 'communication differences' (Martin 2006). These studies suggest that situations involving discussion and dialogue can compound difficulties in social interaction for some students and act as a barrier to learning. See also Taylor (2005) for an evaluation of the effects of 'reasonable adjustments' designed to accommodate the differences associated with autistic spectrum disorders in mathematics and computing.

2.2 Variation in prior knowledge

How to engage all students when their initial level of subject knowledge is very varied has emerged as a theme in a number of studies (e.g. Hockings et al. 2008b, Hounsell et al. 2004, Northedge 2003). In their study of the learning and teaching environment in an economics course, Hounsell et al. (2004) found that:

'...some students had subject knowledge that others lacked, and some majored in it while others took it only in first-year. One response to this dual challenge was to align the course chiefly to intending major students, and so retain the strongly mathematical character of the discipline; a contrasting one in another unit where non-majors were in the majority was to strip out much of the statistical content, focusing on core principles and using engaging examples.' (Hounsell et al. 2004:7)

However, they also found that aligning the curriculum too closely with one group of students 'could prove under-stimulating or demotivating for others'. Another response to accommodate differences in students' knowledge was identified by Hockings et al. (2008b) in their study of learning and teaching in a computer programming module. In this case the teacher prepared a large bank of exercises so that those who had prior knowledge could work through the exercises independently, thereby freeing the teacher to offer more targeted support and guidance to those who needed it most. One of the dangers of such a strategy, they found, was that the more 'advanced' students got bored of performing routine drills and repetitive tasks that tested skills and knowledge at the same level. They argue that such exercises should not just occupy students, they should 'expand' or 'extend' their knowledge (see also Burns and Myhill 2004: 36). Hockings et al. (2008b) advocate an alternative strategy that involves creating opportunities in class for sharing and developing the knowledge and skills within the group. Northedge (2003) also adopts this approach.

In his study of teaching a large cohort of health and social care students Northedge (2003) used the rich and diverse resource of experience and



knowledge within the group to build a knowledge community in which those with or without prior knowledge and experience could participate equally. By carefully selecting readings and case studies from discourses within the community of care practitioners, students were able to engage on a number of levels. Drawing on Wenger's (1998) theories of learning and participation within a community of practice, Northedge argues that:

'Since knowledge communities always encompass a wide range of members participating at different levels, students from diverse backgrounds and levels of experience can very effectively participate alongside each other, provided the educational programme is designed and the teaching delivered with this in view.' (p31)

The texts that Northedge selected for this group also connected directly with students' lives, interests and career aspirations. Rather than selecting mainstream sociological texts, he chose texts written by sociologists within the care community.

2.3 Connecting with students' interests and aspirations

Connecting with students' interests, aspirations and future identities has been identified already as a key factor in engaging students in learning (Hockings et al. 2010, Williams et al. 2010, Zepke and Leach 2007). Indeed many students choose vocational and professional courses because they connect specifically with their goals and aspirations. While students on courses such as nursing or social work may be socially and culturally diverse, they are united by their common goals and aspirations. The majority will take the same modules and follow similar trajectories making it relatively easy for teachers to select topics and materials that will be seen as relevant, interesting and meaningful to the majority. This it is not so easy for those who teach subjects are often perceived by students as theoretical or abstract, such as sociology, or subjects such as computing, whose students may want to specialise in the subject to become a IT professional, or just get a general understanding of computing for business. In these subjects, students' reasons for choosing the module, their motivations and aspirations and their prior knowledge are likely to be very different. Large class sizes compound the problem of getting to know about these differences. Under these conditions teachers often base their teaching on their assumptions about students' lives and interests, or on their beliefs about what 'the average' student should know (see also Hounsell et al. 2004). Activities, materials and other resources chosen to connect with one group's interests on the assumption that they will appeal to all students may leave some students disengaged (Hockings et al. 2008b). Flexible learning and teaching strategies that allow students to apply what they are learning to their own interests are likely to engage a wider range of students (Hockings et al. 2010, Zepke and Leach 2007).

2.4 Culture and climate

Classroom climate and the ways in which power is exercised and dynamics are managed emerge as key themes in a number of studies and across a number of subjects. For example, in their case study of teaching in information technology classrooms, Clegg et al. (2000) focus on gendered patterns of teacher and student interaction that may disadvantage female students. De Vita (2000), reflecting on learning and teaching within international business management, outlines a range of cultural and linguistic differences among his internationally diverse groups, highlighting the ways they may be perceived by students and teachers from British backgrounds. Bowl's (2003, 2005) study of mature students in social science illustrates the ways in which the experiences of some of the students are not valued within the formal curriculum. Sociological topics of particular significance to the low income, lone parent and ethnic minority students in her study, such as racism and poverty, were felt to have been 'sidelined' and discussions around them suppressed by teachers who appeared unwilling or unable to deal with the conflict that might have arisen. Referring to Freire (1972) and hooks (1994), Bowl endorses strategies that help build 'community' in the classroom, 'create a climate of trust where all are *expected* to speak and share their stories' (hooks 1994 cited in Bowl 2005 p.132) and where all contributions are regarded as valid.

Mertz (2007) also raises the issue of who speaks and who is silent in class in her ethnographic study of learning and teaching in eight law schools in the US. Using an anthropological linguistic approach to analyse classroom dynamics, ways of questioning, student and teacher talk and other subtle aspects of interactions, Mertz concludes that 'women have more of a voice in classes taught by women in non-elite classrooms... and students of color are dominant speakers only in the classes taught by professors of color' (p.202). Along with others, she suggests that traditional law school teaching creates a 'chilling climate that is differentially discouraging to women' (Guinier et al. 1997) and negative towards students with public service interest ambitions, most of whom are women and 'students of color' (Granfield 1992). Competitive, individualistic and occasionally 'macho' behaviour can be off putting to women as well as newcomers to a subject, as observed in a study of computing in two different universities (see Hockings et al. 2008b). Other studies show that teachers interact with students in qualitatively and quantitatively different ways, leaving some students excluded or isolated (see for example Clegg et al. 2000).

These fine grained studies of classroom practice and behaviour suggest that teacher identity, teaching approaches and methods of questioning, facilitating and chairing discussions are key factors influencing who speaks and who remains silent in class, who is included and who is excluded. Both Mertz (2007) and Bowl (2005) argue that if students' backgrounds and experiences are not given voice, the differences that they reflect may be pushed to the margins of subject discourses and curricula.

2.5. Attitudes towards diversity and difference

The ways in which students may be seen as well as heard is the focus of Mathews' (2009) study of 'invisible disabled' students in the classroom. In this small scale study Mathews deals with themes of student identity and the conditions under which students can express their differences and disclose difficulties. As others have recommended (e.g. Jacklin et al. 2007), Mathews calls for a 'broader effort to promote a positive attitude towards diversity among the whole student body...'. Taking up Cottrell's challenge to create an 'atmosphere where it feels safe for students to disclose' (Cottrell 2003:125-6), Mathews describes the design and implementation of an innovative induction activity to promote understanding of diversity and difference among 150 students. The degree to which students engaged with these issues and applied their understanding to their surroundings, seemed to be influenced by the level of classroom debate and discussion in the first stage of the activity. Mathews notes that some teachers avoided the discussion element of the exercise thereby limiting students' opportunity to engage academically with the issues. She attributed this avoidance behaviour to an over dependence on a teacher-led 'banking' approach to teaching (Freire 1972), a lack of knowledge and confidence in talking about disability, and fears about raising unrealistic demand for individual pastoral care. See Hockings et al. (2009) and Zepke and Leach (2007) for a discussion of teachers' understanding of, and attitudes towards, student diversity and their influence on teaching practice. See also Dogra (2001) for another example of an intervention designed to promote cultural understanding among students in medicine.

2.6 .Sensitive situations and conflict handling

Concerns about teachers' skills in handling potentially sensitive issues have been raised in a number of studies (e.g. Bowl 2005, Housee 2001, Tomalin 2007). In her report on a survey of staff working in higher education in the UK commissioned by the Philosophical and Religious Studies Subject Centre, Tomalin (2007) explores the impact of cultural and religious diversity on colleagues' working practices. While her respondents tended to adopt a 'liberal/left liberal' approach to multiculturalism, characterised by student-centred inclusivity and trust building, several said they would avoid taking a more critical approach that seeks to address imbalances of power because it could be 'risky.' They did not feel 'equipped' to deal critically with such issues. These concerns highlight the need for teachers to develop, as Bowl (2005) suggests, strategies for tackling defensiveness and denial and for dealing constructively with potential conflict. They also highlight the need for teachers to reflect on their own identities, beliefs and attitudes and the impact these have on their practice and on the learning of all students (Warren 2002). For an interesting discussion on the issue of teacher identity in the teaching of race, see: Garner 2008, Housee 2001 and Jacobs (2006). See Cousin (2006) for an exploration of 'emotional capital' and learner stances for the mastery of issues connected to diversity. See also Singh's (forthcoming) synthesis of the research on the retention, success and achievement of Black and minority ethnic

students in HE.

Much of the literature around inclusive learning and teaching confirms the relationship between student-centred pedagogies and student success, as established by earlier studies (Marton et al. 1997, Prosser and Trigwell 1999). However, the research reported here goes further by suggesting that, in order to be as inclusive of as wide a range of students as possible, teachers need to engage meaningfully with student diversity within the context of the subject. See also Warren (2005) for a critique of student-centred pedagogy in multicultural contexts.

3. Inclusive assessment

Inclusive assessment refers to the design and use of fair and effective assessment methods and practices that enable all students to demonstrate to their full potential what they know, understand and can do. Much of the research draws attention to the ways in which some assessment practices advantage some students and disadvantage others. Other studies focus on alternative forms of assessment that enable as wide a range of students as possible to develop and achieve on an equal footing.

3.1 Fair assessment?

Objectivity, clarity and transparency are considered to be essential elements of a fair and valid system of assessment (Sambell et al. 1997). These principles underpin much of the assessment research and quality assurance literature (QAA 2000, Yorke et al. 2004). Students also say that the use of clear and objective criteria, consistency of marking practices and linkage of assessment to the curriculum are key to their notion of a fair assessment system (see studies by Drew 2001 and Lizzio et al. 2007). However, many researchers and academics question these assumptions and argue that the tools and techniques derived from them are of 'limited use in today's more fragmented programmes which serve an increasingly diverse student population' (O'Donovan et al. 2008: 207).

Sadler (2009) is amongst these critics. In a study of pre-set marking criteria he questions the validity of the notion that they increase openness for students and produce more objectivity in grading. He identifies six anomalies in the use of pre-set criteria that can lead to distorted grading decisions. He argues that their use also 'creates a veil of rigour that makes it difficult for learners to question either the process or the outcome' (p. 178).

Judgement against criteria is also brought into question by Bloxham (2007) who exposes the 'fragile enterprise' of grading students against only 'tacitly understood' criteria. In her exploration of the process of marking and moderation and the 'false assumptions' underpinning them, Bloxham (2009) argues that, while we need to ensure that stakeholders have confidence in marking, this should not be through 'focusing on unattainable reliability and

accuracy.'

Orr (2007) also problematises what she sees as the 'positivist' view of assessment with its emphasis on objectivity and measurement. Taking a post structural stance she asks 'in whose interests are the different algorithms? Who decides? Who benefits? And do these decisions privilege or disadvantage certain groups?' (p. 647). In her observations of moderation practices in art and design, she reveals not the accuracy of assessment but the messiness of interpretation and co-construction of meaning in relation to the practice of agreeing grades.

These studies challenge many of the assumptions that underpin established assessment practices. They suggest that the systems and practices for judging students' learning and assuring standards are not as reliable as they appear. The question of who benefits from this imprecise practice is the subject of research discussed in the next section.

3.2 *Fair for all?*

As discussed earlier, students who enter university with vocational qualifications often feel that their vocational education and training do not adequately prepare them for academic work and traditional forms of assessment at university (Hatt and Baxter 2003, Hoelscher et al. 2008, Leathwood and Hutchings 2003). In their study of students from VET backgrounds, Ertl et al. (2010) reported that some lecturers believed that these students had specific problems with certain aspects of academic work such as the use of 'appropriate language', 'essay writing', 'exams' and 'other assessments'. This research suggests that students coming from so-called non traditional VET routes into higher education are expected to adapt to the assessment practices traditionally used, rather than being offered alternative forms of assessment. Research into entry routes to higher education also suggests that working class students, mature students and students from some ethnic minorities are more likely to take vocational routes to higher education than young, white middle class students (Leathwood and Hutchings 2003, Francis 2006, Payne 2003). This suggests that these groups are more likely to be disadvantaged by the traditional forms of assessment common in higher education. Indeed, drawing on the framework of 'new literacy studies' Lillis' research (2001) suggests that essayist literacy practice privileges 'the discursive routines of particular social groups while dismissing those of people who, culturally and communally, have access to and engage in a range of other practices' (p. 39). With these issues in mind, Hounsell (2007: 8) asks two key questions:

'Could an assessment scheme be considered fair if it had the effect of enabling the traditional entrants to shine without having to stretch themselves, while leaving the non-traditional entrants toiling to make up the gap between themselves and their peers? And what might be the

consequences of an extended game of catch-up for the motivation and commitment of some non-traditional students?’

Studies that focus on the attainment of students in higher education in the UK have raised concerns about the differences in the degree classifications awarded to students from different ethnic groups (Broecke and Nicholls 2007, Connor et al. 2004, Richardson 2008). These studies suggest that white students are more likely to obtain a first class degree than Black and minority ethnic (BME) students. BME students are much more likely to get a third or lower class of degree than their white peers. The research also shows that white students do better than all minority ethnic groups overall, even when background and other variables known to affect degree classification are taken into account (Connor et al. 2004).

In 2008, the Academy and Equality Challenge Unit (ECU) reported on their findings from an investigation into students’ and academics’ understandings and perceptions of this degree attainment variation. From their analysis of quantitative and qualitative data gathered from 56 HEIs in England, the researchers concluded that degree classification obtained was influenced by a complex array of factors. Analysis of data by ethnicity suggested that factors such as the ‘need to work’, ‘social class’, ‘family background of university study’ and ‘experience of marginalisation of ethnic minority people’ were key determinants of degree classification. The research team explain that ‘an important aspect of this complexity concerns differentiation in relation to intersectionality / multiple discrimination’ and they call for more research in this particular area (Higher Education Academy and Equality Challenge Unit 2008: 19).

Data from the National Student Surveys for 2004-05 and 2005-06 (SurrIDGE 2007) revealed a variation in satisfaction with assessment and marking arrangements by ethnicity. According to these data, 74 per cent of white students agreed with the statement ‘assessment and marking arrangements have been fair’, compared to 66 per cent of Black students, 64 per cent of Asian students and 67 per cent of ‘others’. This suggests that Black and minority ethnic students experience assessment in ways that are different from their white British peers.

In her review of the assessment, standards and equity literature, Leathwood (2005) draws upon a number of studies to illustrate the point that social and cultural groups differ in the extent to which they share the values that underlie and promote assessment. In a study of ethnic minority progression and achievement in two English universities, she cites Dyke (1998: 119) who identified issues relating to the type of assessment, the assessment criteria as well as the curriculum and staff/student interaction as ‘not operating in a way that helped equalize life chances but in ways that helped reinforce stratification on ethnic/racial grounds’ (in Leathwood 2005).

As reported in Read et al. (2005) a number of studies have found evidence of bias relating to the gender of the student in the assessment of students' essays (e.g. Murphy and Elwood 1998). But while some feminist researchers argue that conceptions of the 'good' essay are gendered both in terms of content and structure (Burke and Jackson 2007, Francis et al. 2001), Read et al. (2005) could not detect any strong gender distinctions in the written feedback given by male and female teachers on their students' history essays. Against the backdrop of much discussion about the relative performance of male and female students in UK higher education, Hartley et al. (2007) set up a study to compare the marks awarded to 42 male and 42 female students in four different forms of assessment. Their results indicated that there were no significant differences in performance between the men and the women on the multiple-choice examination, essay examination, course-work essay and project. However, when the data from mature and foundation year students were discounted (some 20% of the sample), the women performed significantly better than the men on all four measures.

For some years higher education institutions in the UK have made special provision for the assessment of students whose disability put them at a disadvantage when compared to non-disabled students. Measures that are commonly used include allowing extra time, providing a scribe and providing a separate room. Waterfield and West (2006) define this approach as 'contingent' because it treats disabled students on an individual basis while the mainstream system remains unchanged. No changes are made to the form of assessment itself, rather the disabled student is expected to adjust to it. This form of assimilation has a number of disadvantages. By contrast, the 'alternative approach' involves offering a range of different forms of assessment embedded into course design to cater for, and in anticipation of, a minority of disabled students. This also has a number of disadvantages. For example, the findings from a survey of HEIs in England (Earle et al. 1997, cited in Sharpe and Earle 2000) revealed 'an astonishing range of practices, both in the kinds of alternative assessments offered and the decision-making processes involved...'. Focusing on the 'problems of compensation', Sharpe and Earle (2000) conclude on grounds of validity and social justice that:

'There is no reason why alternative forms of assessment could not be devised which are genuinely equivalent in terms of the knowledge and skills assessed, there should correspondingly be no barrier to any student – disabled or not – choosing to be assessed by such a method.' (p. 198)

This is the reasoning on which the 'inclusive' approach to assessment is based. This approach is consistent with the principles of Universal Design described earlier in this synthesis. It is also the approach advocated by SPACE (Staff-Student Partnership for Assessment Change and Evaluation) project

researchers, Waterfield and West (2006). (See also Waterfield et al. 2006). This HEFCE funded project, carried out as a South West Academic Network for Disability Support (SWANDS) initiative, coordinated by the University of Plymouth, explored disabled and non-disabled students' experience of course assessment over a three-year period. Data collection methods included: annual surveys of disabled students and non-disabled students; a longitudinal questionnaire of a cohort of disabled students over a 3-year period; one-to-one, in-depth, semi-structured interviews of disabled and nondisabled students; and trials and evaluations of alternative and inclusive assessments involving disabled and non-disabled students and including an element of ethnographic study.

In their web based report of the project, *Inclusive Assessment in Higher Education: A Resource for Change*, Waterfield and West (2006) argue that:

'This [inclusive] way of assessing student learning makes no arbitrary distinction between "disabled" and "non-disabled" in the same way that it would make no distinction between students from "traditional" and "non-traditional" backgrounds.'

They argue that the inclusive approach does not compromise academic standards, rather it improves the chances for students to fairly demonstrate their acquisition of the learning outcomes. They maintain that this is also congruent with the social, cultural and legislative imperatives pressing the higher education sector to play an active role in creating a more inclusive society.

Despite its advocates, two surveys conducted by Fuller and her colleagues in 2004 (Fuller, Bradley and Healey 2004; Fuller, Hurst and Bradley, 2004) indicated that little progress had been made in relation to allowing students to demonstrate mastery of learning outcomes through alternative forms of assessment. The disabled students in this study also reported particular difficulties in obtaining the adjustments they had been assessed as needing. Drawing on the 2004 survey data, Fuller and Healey (2009) report the disabled students' concerns about the lack of consistency in the practice of making reasonable adjustments throughout their courses, between subjects and so on. Some saw this as unfair, but acknowledged that in some instances reasonable adjustments could be unfair to non disabled students too. Some students felt that they would be seen as taking unfair advantage if they asked for too many adjustments. This study also revealed that disabled students' degree outcomes were generally poorer than those of non-disabled students.

The research outlined in this subsection illustrates the ways in which some groups of students are disadvantaged by assessment systems and practices in higher education. The next section focuses on research that addresses some of these inequalities through more inclusive assessment.

3.3. Towards inclusive assessment

In an attempt to make the assessment system fairer for all students, a number of studies advocate greater openness about the uncertainties of grading and marking and closer involvement of students in their own assessment. For example, Sadler (2009) suggests 'holistic appraisal' as an alternative approach that can be extended to involve students in the judgement of their own and others' 'complex' work:

'After each appraisal is made, students formulate their rationales. As students make holistic judgments and develop skill in providing justifications, they position themselves to engage in conversations with peers and faculty about the nature and functions of the criteria they employ.' (Sadler 2009 pp. 176-7)

In a similar vein, Bloxham (2009: 217) advocates involving students as partners in assessment:

'Just as a doctor will share with a patient uncertainty about a diagnosis, so we should help students to understand that application of assessment criteria in HE is a matter of professional judgement, not a matter of fact. In other words, should we be gradually inducting students into the subjective nature of marking, increasingly expecting them to demonstrate why they think they have met the criteria?'

This, she argues, is 'assessment *as learning*'. It gives students the opportunity to learn what a good exam answer, essay, project or piece looks like within a given context. She, like others, argue 'that it is time that we 'let students into the secret' that grading is a fragile, subjective and unreliable enterprise (Bloxham 2007).

Boud and Falchikov (2006) also call for greater involvement of students in the assessment process and, along with many including Hounsell (2003), Sambell and Hubbard (2004) and Yorke (2003), they advocate greater use of formative assessment as a way of making assessment more appropriate for long term learning. Mindful of the diverse needs and lifestyles of an increasingly heterogeneous student population, Boud and Falchikov (2006) argue that traditional assessments undermine students' capacity to judge their own work and this in turn 'works to constrain the lifelong learning agenda' (p. 403). They offer a set of 'illustrations' for 'sustainable' assessment that they believe will prepare students for uncertain futures.

Among the research that seeks to develop fairer systems of assessment is Hounsell's (2007) guide to integrative assessment. Underpinning his notion of integrative assessment is the theory of multiple intelligences (Gardner 1999). According to multiple intelligence theory traditional tests of intelligence that focus on two dimensions of intelligence, namely logical-mathematical and

verbal-linguistic, do not sufficiently encompass the wide variety of abilities humans display. For example, a child who struggles with multiplication may be no less intelligent overall than a child who does not. S/he may, however, be stronger in another kind of intelligence and make sense of multiplication through a different approach. Other intelligences include: bodily-kinesthetic (relating to learning through physical movements such as dance and movement); visual-spatial (relating to vision and spatial judgment, visualising and mentally manipulating objects); and musical (a musical-rhythmic intelligence in which sensitivity to sounds, rhythms, tones and music is displayed). Hounsell argues that integrated assessment should recognise and incorporate different intelligences and diverse cognitive and stylistic profiles. In his guide to integrative assessment he provides an annotated bibliography of research projects and case studies in the UK, Ireland, Australia and Hong Kong that show how integrated assessment methods and practices can be aligned to the backgrounds and aspirations of diverse groups of students. Among the references in Hounsell's guide is Jackson's (2006) work with teachers in hospitality, leisure and tourism to develop a more diverse range of assessments for students with dyslexia. Also included are the case studies reported in Sambell et al. (2002) which describe how formative and summative self-evaluation activities and opportunities for peer feedback helped develop student autonomy as learners within the context of increasing diversity. Hounsell also includes studies that promote the idea of offering a range and mix of assessment methods on courses with large and diverse intakes (e.g. Chan et al. 2006 and Quinn 2005) and which also encourage students to evaluate and assess their own work (Sambell et al. 2006).

Key themes arising from the assessment research reported here include the need for student involvement at all stages in the process of assessment and the need for a variety of assessment so that students, whether disabled or not, have the opportunity to choose the form of assessment that enables them to demonstrate their learning most effectively. Research into the experiences of disabled students also recommends that assessment methods and practices are designed using principles of Universal Design that anticipate the needs and requirements of a wide range of students. Studies into widening participation and student retention also advocate greater use of formative assessment (Knight and Yorke 2003, Yorke 2001). Formative assessment that is integrated into programmes, rather than offered as an optional extra, ensures that *all* students get feedback on their learning (Yorke 2001) without fear of failure. Combined with self and peer assessment, 'low stakes' formative assessment (Sambell and Hubbard 2004) also provides opportunities for students to develop as autonomous learners, confident in approaching staff for clarification and guidance.

4. Institutional commitment to and management of inclusive learning and teaching

The final section of this synthesis highlights some of the research that focuses

on the implementation of inclusive learning and teaching in institutions at strategic, tactical and operational levels. Much of the literature in this area describes institution wide initiatives but few draw on robust evidence gathered systematically for the purposes of evaluation. Indeed some of the reports included in this section identify lack of evidence as a weakness in efforts to make convincing arguments for inclusive policy and practice.

A number of publications that deal with issues of leadership and the management of change in higher education also offer some insights into improving learning and teaching specifically (see for example Knight and Trowler 2000, Martin 1999, Ramsden 1998). Research in the field of academic development also offers ways in which top down and bottom up change and improvement in learning and teaching can be implemented in higher education (see for example Beaty and Cousin 2003). There is also a body of research that focuses on and critiques neo liberal management practices and discourses that dominate UK higher education. Set within the context of widening participation and increasing student diversity, many of these critiques deconstruct the rhetoric of policy statements and management speak that misappropriate concepts such as inclusion, diversity and widening participation to support or justify particular agendas. For example, in their study of access and recruitment to universities in Scotland, Morgan-Klein and Murphy (2002) focus on the ways in which 'educational and social equality have become entangled with issues of market supply and demand, recruitment and institutional survival' (p. 66). They conclude that institutional goals in relation to access are often ambiguous and must be clarified and understood as a first step towards designing effective policy. In a paper that critically reflects on the 'ab/uses' of equity discourse in widening participation, Archer (2007) draws attention to the ways in which 'diversity' may operate as a moral discourse that silences other competing critical accounts of widening participation.

Studies that focus on the experiences of specific groups of students in higher education also question new managerialist tools and techniques, such as target setting and equality audits, as simply encouraging minimal performance. For example, in their study of disabled students in four UK universities, Riddell and Weedon (2009b) explore the impact of the Disability Discrimination Act (DDA) at institutional level with key staff and managers, focusing on policies and practices for disabled students within the widening access agenda. In relation to institution-wide policy drivers, the researchers found the DDA to be the most influential factor driving changes in practice. It was found that the QAA Code of Practice for disabled students (QAA 1999) was less of a driver for change in the pre 1992 universities than in the post 1992 universities. Pre 1992 universities appeared to be more focused on the demands of the Research Assessment Exercise than their post 1992 colleagues. Furthermore the post 1992 universities were more compliant with the Code given the dominant culture of compliance in these institutions. However, Riddell and Weedon stress that 'passive compliance did not mean that major change would ensue' (p. 37). They

conclude that ‘changes in institutions tend to take place as a result of bottom-up, as well as top-down pressures’ (p.37). This resonates with Knight and Trowler’s (2000: 81) argument that cultural change occurs when the ‘focus of leadership attention is at the level of the natural activity system of universities: the department or a subunit of it’. They call for leadership by ‘facilitating collaboration’, an approach which they argue requires changes to leadership and management training for departmental heads which, at present, ‘is widely limited to legal matters, organisational procedures and doing the budget’ (p. 81).

Amongst the few studies that specifically deal with leadership and management of diversity and widening participation in HE, is the HEFCE commissioned case study report ‘Successful Student Diversity’ compiled by Powney (2002) (see Key Research Report section above). This report offers a number of suggestions aimed at staff and institutions for successful implementation of strategies for student diversity based on twenty three case study institutions. These suggestions include:

Staffing:

- recognising that student support and guidance is everyone’s responsibility;
- appointing staff to ensure that there is co-ordination between students and the academic and support services provided for their benefit;
- providing staff development as an essential component of widening participation;
- identifying how best to use ‘champions’ in fostering cultural change;
- demonstrating how involvement in inclusive education can benefit staff.

Institutional strategy:

- clarifying long-term institutional commitment to widening participation;
- establishing institution-wide policies and procedures that foster co-operation and collaboration between interested parties, rather than working in isolation;
- ensuring that resource strategies take account of the real costs of widening participation for different institutional services;
- devolving funding and implementation of strategy to departments, and ensuring that schemes are adequately monitored and evaluated and that experiences are disseminated across the institution and beyond;
- encouraging departments to make concrete plans for activities rather than vague aspirations or claims of existing excellence;
- providing adequate and relevant central services to support students and staff; integrating strategies for teaching and learning, widening participation and disability strategies; and co-ordinating the efforts of academics and specialist support staff in central service centres;
- recognising staff contributions to widening participation in criteria for appointment and promotion;

- setting up compulsory staff development programmes to support widening participation.

In the Academy commissioned study, Shaw et al. (2007) explore the ways in which institutions promote, understand and implement strategies for widening participation and student diversity from a business perspective. Key issues from this report are outlined in the section Key Research Reports above. However, it is worth drawing out here issues arising from the study specifically relating to leadership and management. For example, widening participation and student diversity were seen by many academics, key staff and managers as a 'cost' to the institution rather than a 'benefit'. The need to address negative perceptions was seen as essential to successful embedding of widening participation and diversity, even among the most 'open', 'embracing' and multi-cultural' HEIs:

'If institutional change is to be facilitated then developments in the whole of the HE sector, and individual institutional policy, need to take account of these views. If not, even with the greatest commitment, attempts to create change are likely to flounder.' (p 113)

In one HEI, senior management addressed negative perceptions head on using external examiners' reports as evidence to demonstrate that widening participation had not lowered standards.

A key message for institutions arising from this project is that:

'HEIs must be prepared to transform themselves and embed practices and cultures throughout their organisations which support student diversity.' (p 37)

The authors do not make recommendations, nor offer a 'one size fits all' business case model. Instead they offer a check list of questions and two planning tools that HEIs can apply or adapt to appraise how their strategic direction and organisational culture supports widening participation and diversity.

Developing and embedding inclusive policy and practice in higher education was the focus of an Academy led change programme between 2007 and 2008. This programme, open to all UK HEIs, supported calls to embed consideration for equity across all functions of the institution as part of the quality enhancement process (Gorard et al. 2006, Shaw et al. 2007, Thomas et al. 2005). It created the space for the ten HEI teams to exchange ideas about policy, practice and implementation while they were undertaking cultural and systemic changes in their institutions. In their report on this change programme, May and Bridger (2010) focus on the teams' experiences of developing or embedding aspects of inclusion related to disability equality or widening participation. They present

their analysis of the ten case studies and data generated during observations of team meetings, institutional visits, focus group meetings, interviews and responses to reflective questions. Three key conclusions emerge from this analysis:

- change is required at both intuitional and individual level to bring about inclusive policy and practice;
- a strong evidence base is needed to demonstrate the need for change and to set priorities. Evidence should be relevant to the institutional context and stakeholder groups;
- a mixed method, tailored approach involving different stake holder groups across the institution is necessary to ensure inclusive policy is considered in relation to multiple functions.

May and Bridger also highlight the importance of language in the process of change. Changing particular words or phrases (e.g. 'entitlement' rather than 'need') appeared to influence stakeholders' thinking around inclusivity and promoted a culture of success of all students.

In their discussion, the authors identify a spectrum of institutional approaches to widening participation and disability equality ranging from 'limited adaption' to 'extensive modification' provision. They suggest, along with Shaw et al. (2007), that institutions shift their approaches over time. They represent this as a 'continuum model of equality and widening participation' (p86) showing different dimensions of inclusive practice. This model, they suggest, serves as a reminder that equality and widening participation are part of an on going process rather than something that can be 'ticked off' a list.

The authors turn to the literature on organisational change to explain the ways in which the institutions in the programme implemented and embedded their various initiatives. They describe five common approaches to organisational change (techno-rational, resource allocation, diffusionist, continuous quality improvement and complexity) (see Trowler et al. 2005 and Bronfenbrenner's (1977) ecological model of development. These models are discussed in relation to the diversity of institutions in the programme and approaches adopted. The interaction between institutional and individual change is also discussed using the McKinsey 7 S framework (1995-2009) and with reference to Bronfenbrennan's model and other models. It is not clear from this analysis or from the individual case studies, how or if any of the models described had influenced or guided the change initiatives. Nor were the benefits of adopting a model of change at the outset considered. However, it is helpful to locate the findings from the case institutions within this body of literature and to make sense of the process of organisational change from a theoretical perspective. (For insight and guidance to institutional change using learning organisation (Senge 1992) theory and principles, see Martin 1999).

In a review of the research on barriers to widening participation, Gorard et al. (2006) devote an entire chapter to organisational change and the implications for access, success and retention of 'non-traditional' students. Overall the research indicated that organisations need to change to better support students' needs. They highlight research by Dodgson and Bolam (2002) set in the North East of England that explored the ways in which institutional and regional commitment to student retention and success was embodied throughout the stages of the student lifecycle and in various aspects of the student experience including learning, teaching and assessment. However, a lack of linkage between race and gender equality policies and strategies and other relevant strategies, such as learning and teaching strategies, was identified in a number of the HEIs studied in the Ethnicity, Gender and Degree Attainment Project managed by the Academy and Equality Challenge Unit (2008). The research team also reported a lack of systematic monitoring of degree attainment and participation by ethnicity and gender and variable commitment to issues of equality and diversity across the HEIs surveyed, with some apparent lack of engagement from managers. A key recommendation from this report is that:

'HEIs should review the position, role and authority of their Equality and Diversity committees with a view to strengthening their capacity to support the raising of degree attainment levels for all students.' (p.32)

Research conducted by Parker et al. (2005) explored the practices of staff in ten HE education departments rated by the QAA as successful in widening participation. This study, also acknowledged in the literature review conducted by Gorard et al. (2006), indicates that the institutions most successful at widening participation are those whose staff also developed a diversity of teaching, learning and curriculum changes to meet the needs of a wide range of students.

The diversity of HE staff (or lack of it) is an issue raised in a number of studies of learning and teaching in higher education. Taylor (2000) highlights the importance of the diversity of academic staff for developing inclusive HE environments and for providing role models for under-represented groups. Higson et al. (2004) in their investigation into business studies programmes for ethnic minority students in a university in the Midlands in England found that some ethnic minority students are less inclined to approach lecturers for support and advice than their white British peers. Dyke (1998), in her study of ethnic minority achievement in two English universities, also suggests that white students tend to benefit from higher levels of interaction with academic staff, who were overwhelmingly white. Similar concerns have been raised by others (e.g. Mertz 2007 see section 2.4 above). This raises important issues for human resource and recruitment policies and practices within institutions, particularly in terms of communicating a coherent institutional commitment to diversity and inclusivity in all aspects of university life and work.

Overall the research seems to indicate that inclusive learning and teaching will remain piecemeal across institutions unless there is strong commitment from senior management complemented by action. This means that negative perceptions are countered with robust evidence of the benefits, and that individuals take responsibility for contributing to creating an inclusive learning environment. This may require changes in recruitment practices, training and development of teachers, support staff and managers. For some HEIs it may also mean a review of the strategy and policies related to learning and teaching to ensure that equality, diversity and inclusivity are not bolted on but integrated and coherent across all aspects of the student experience. These findings correspond to those in Fuller et al. 2009, Shaw et al. 2007 and Waterfield and West 2006. This principle is also enshrined in new equality legislation (A fairer future. The Equality Bill and other actions to make equality a reality). Equality duties to be imposed under the Bill (clauses 147 and 148) in relation to race, gender and disability have included the requirements to consult, to draw up schemes or action plans and set out processes for assessing the equality impact of new policies, programmes and services as well as monitoring performance.

Implications for policy and practice

A number of common issues and key requirements for inclusive learning and teaching emerge from this synthesis. These are outlined below as principles intended to capture the essence of the issues rather than provide detailed explanations. There is significant overlap in the research reported such that it would be inappropriate to attribute any one principle to a particular research report or section. For example, principle 1 (the need to see students as individuals, to learn about and value their differences and to maintain high expectations of all students) is a common theme in much of the research and it appears in most of the sections of this synthesis in some way.

The principles are also interrelated and interdependent. For example, principle 6 calls for a shift in deficit beliefs about, and attitudes towards, student diversity. Changing attitudes and beliefs is a long term process that involves individual and whole institutional transformation and senior management commitment, as indicated in section 4 of this synthesis. It will involve deepening our understanding of students (principle 1), developing staff (principle 9), using institutional data to monitor the effect of our policies and changing those that inhibit inclusive practice (principles 7 and 11). The principles are therefore necessarily broad and interrelated. Readers are invited to interpret them according to their own contexts.

1. The need to see students as individuals, to learn about and value their differences and to maintain high expectations of all students.

2. The need for teachers to create safe learning environments in which students can express their ideas, beliefs, requirements and identities freely in an atmosphere of mutual trust and respect, empathy and open mindedness.
3. The need to establish at the outset clear rules of what is expected from students with tight control and close monitoring in order to develop confident learner identities and behaviours.
4. The need for teachers to create student-focused 'universal' programmes, modules and lessons that engage all students meaningfully by encouraging them to draw on and apply their own and others' knowledge.
5. The need for teachers to anticipate, recognise and provide for individuals' specific physical, cultural, academic and pastoral needs, particularly at critical periods (e.g. transitions, examinations).
6. The need for shifts in negative beliefs about, and attitudes towards, student diversity that currently inhibit the development of inclusive learning and teaching.
7. The need to challenge and change policies, practices, systems and standards that inhibit the participation of students in any subject or constrain teachers' capacity to engage all their students.
8. The need for greater involvement of students in the negotiation of the curriculum, assessment and in the development of teachers.
9. The need for adequate time, resources and a safe environment in which staff at all levels can develop a shared understanding and commitment to student diversity and inclusive practice. Such understanding and commitment should be a key component of staff recruitment, training, development and reward.
10. The need for adequate and relevant central services to support students and staff; integrating strategies for teaching and learning, widening participation and disability; and co-ordinating the efforts of academics and specialist support staff in central service centres.
11. The need for collection and analysis of institutional, quantitative and qualitative data for the evaluation and improvement of inclusive learning and teaching strategies, policies and practices.

Institutions and individuals will interpret and apply these principles in different ways according to their own particular situation and context but it is worth



taking one of these principles and considering what it might look like in practice. Principle 9, for example, calls for adequate time, resources and a safe environment in which staff at all levels can develop a shared understanding and commitment to student diversity and inclusive practice. Many institutions offer post graduate certificate programmes for staff in higher education that focus on learning and teaching. However, there is little evidence that these programmes go beyond a superficial treatment of widening participation, equality, diversity and inclusive practice despite a commitment through the Professional Standards Framework that Academy accredited programmes should acknowledge diversity and promote equality of opportunity. There has been considerable investment in these and other programmes through, for example, the Academy, Centres for Excellence in Teaching and Learning and the Fund for the Development of Teaching and Learning.

An institutional response to principle 9 might result in a review and evaluation of the ways in which inclusive learning and teaching is currently addressed in staff development programmes. This might then lead to changes in the programme documentation, syllabus, materials and activities to make explicit issues of diversity and equality. At the practical level there might be changes in the monitoring and observation of teaching that specifically encourage individual teachers to reflect on their practice in relation to inclusive learning and teaching principles, as well as on specific issues of teaching groups of students from diverse backgrounds. Specific sessions on handling sensitive issues and situations in the classroom might also be included in such programmes since the research indicates that some teachers are unwilling to approach issues of difference in class to avoid conflict or embarrassment (see for example Bowl 2005). A more radical move might be to ‘reposition’ students within the training and development of teachers (see also principle 8) through a student–staff mentoring scheme or through staff development programmes. This would help teachers to ‘truly see’ their students as individuals (principle 1). See Cooke-Sather and Youens 2007, for examples of two such schemes in the secondary school sector.

Given the diversity of institutions within the sector it is not possible to cover all the implications arising from this synthesis, nor provide examples of how all of the principles may be translated into practice. However, readers are encouraged to access the references in the bibliography and visit the websites listed in the Relevant Portals or Websites section for more practical cases and insights into inclusive learning and teaching in HE.

Implications for stakeholder groups

Summarised below are the implications of the literature for the nature of the commitment required of different stakeholder groups.

Senior managers:

- reviewing systems and procedures and changing those that inhibit inclusive learning;
- coordinating the efforts of academic and student support departments;
- ensuring resources are aligned with supporting inclusive learning and teaching development.

Academic staff:

- continuing reflection on, and understanding of, student diversity and individual difference;
- being aware of own identity and its impact on student learning;
- developing own practice in relation to inclusive learning, teaching, assessment, and curriculum development.

Academic developers:

- reviewing training and development provision;
- changing academic development and training programmes to mainstream equality, diversity and inclusive learning and teaching principles;
- creating safe space for academics to reflect on, and develop their understanding of, students and inclusive teaching;
- developing systems for student participation in staff development.

Student services:

- embedding services within the mainstream provision;
- developing an understanding of needs of larger numbers of students with more diverse backgrounds.

Students:

- Acknowledging and valuing diversity and difference as essential to learning in higher education and citizenship;
- contributing actively to the development of themselves and others, including staff.

Practical applications

The Higher Education Academy Change Programme**'Developing and Embedding Inclusive Policy and Practice in Higher Education'**

Ten HEIs in the UK participated in a change programme facilitated by the Academy between 2007 and 2008. This programme provided the opportunity for institutions to focus on embedding their schemes and initiatives across the whole institution. It provided space for the participating HEIs to meet and exchange ideas on work of a similar nature. The ten institutions produced a range of resources and practical applications for staff in their own institutions that are freely available. Case studies of participating institutions' work on this programme can be found in the report of the programme (May and Bridger 2010). This report plus outlines of the work undertaken by each institution can be found at: <http://www.heacademy.ac.uk/embeddinginclusion>



SPACE (Staff-Student Partnership for Assessment Change and Evaluation) project.

<http://www.plymouth.ac.uk/pages/view.asp?page=10494>

The SPACE was a three-year project funded through HEFCE's Special Initiative Funding for Improving Policy and Provision for Disabled Students. Its aim was to develop and promote inclusive forms of assessment as a way of facilitating a more equitable approach to assessment. The project was initiated and led by the Disability Service at the University of Plymouth and made up of a consortium of eight higher education institutions in the South West including:

- University of Plymouth (coordinating partner)
- University of Bath
- Bath Spa University College
- University College Falmouth (incorporating Dartington College of Arts)
- University of Gloucestershire
- The College of St Mark and St John
- The University of the West of England

Representation on the project was through a partnership of academic members of staff, disability officers and students.

SCIPS (Strategies for Creating Inclusive Programmes of Study)

<http://www.scips.worc.ac.uk/>

SCIPS is the result of a HEFCE funded project led by the Centre for Inclusive Learning Support at the University of Worcester in 2003/04. Since then the project has received funding from a number of other sources and its outputs culturally adapted and translated for the European HE sector.

SCIPS is a resource for staff involved in the interpretation of Subject Benchmark Statements for the creation and/or delivery of programmes. It can also be used during the production of any future Subject Benchmark Statements. Through the identification of potential barriers to learning within Benchmark Statements linked to appropriate enabling strategies, SCIPS assists the academic community in developing a more inclusive approach to the design of teaching, learning and assessment strategies that will enable disabled students to participate more fully in Higher Education.

SWANDS Project - SENDA Compliance

<http://www.plymouth.ac.uk/pages/view.asp?page=3243>

The South West Academic Network for Disability Support (SWANDS) was a HEFCE funded project of nine HEIs in the South West, co-ordinated and managed by the Disability Assist Services at the University of Plymouth. 'An audit and guidance tool for accessible practice within the framework of teaching and learning' was produced as an outcome of this project. This self

audit tool for individuals and departments supported SENDA compliance in key areas of access, learning and teaching, and assessment. This document is available at:

<http://www.plymouth.ac.uk/assets/SWA/Sendadoc.pdf>

Teachability Project

<http://www.teachability.strath.ac.uk>

The Teachability project at the University of Strathclyde promotes the creation of an accessible curriculum for students with disabilities through making freely available informative publications for academic staff. The Teachability Project was funded by the Scottish Higher Education Funding Council (SFC) between 1999 and 2006. The Project's first major publication, *Teachability: Creating an Accessible Curriculum for Students with Disabilities* (2000) has been widely used by academic staff in the UK and beyond to evaluate the accessibility of course provision for disabled students. Teachability is recommended as an off the shelf resource to help academic staff with the assessment of the impact of key institutional activities on disabled people.

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Other relevant portals and websites

Action on Access web pages on disability

http://www.actiononaccess.org/index.php?p=15_5.

There are over 800 resources related to the learning and teaching of students with disabilities that can be accessed in the Action on Access resource directory.

The Higher Education Academy's web pages



<http://www.heacademy.ac.uk/ourwork/teachingandlearning/inclusion>

The Academy's work on inclusion focuses on developing whole-institution policies and practices for all students to have an equal and fulfilling experience. Links from the Inclusion home page to resources on various aspects of inclusion can be found under the following headings in the left hand navigation: Disability Equality; Ethnicity; Widening Participation; and

These pages highlight the work that the Academy is doing in these areas to support the sector and features a range of projects, programmes and resources. One of the projects featured is the Designing an Inclusive Curriculum in Higher Education project (DiCHE). For more information on this project see: http://www.lancs.ac.uk/fass/projects/reap/Documents/DiCHE_ProjectExplanation.pdf

The Higher Education Academy Subject Centres

The subject centres provide a rich source of practical applications, resources and guidelines for supporting staff in developing inclusive practices. The following is intended as an example of this work. :

Psychology Network

<http://www.psychology.heacademy.ac.uk>

A special interest group from this subject centre has been working on a series of eight e-bulletins that seek to:

- Provide focused, targeted, bite-sized advice and guidance on providing a more inclusive experience for all students
- Provide access to key resources on developing a more inclusive curriculum for all students
- Raise awareness of good practice guides and information designed to improve the learning experiences of all students

All eight e-bulletins (Competence Standards, Inclusive Teaching Practice, Inclusive Curriculum, Student Engagement, Inclusive Assessment, Inclusive Technology, Mental Well-being and Inclusive Research Communities) are now available on this website:

<http://www.psychology.heacademy.ac.uk/networks/sig/>

Centre for Ethnicity and Racism Studies, Department of Sociology and Social Policy University of Leeds

<http://www.leeds.ac.uk/cers/toolkit/toolkit.htm>

One of the major outcomes of a Department for Education and Skills funded Innovations project led by the Centre for Ethnicity and Racism Studies, is the Anti-Racist Toolkit. This toolkit aims to assist institutions in the process of anti-racist and race equality planning and action by providing conceptual and methodological 'tools'.

JISC TechDis Service



<http://www.techdis.ac.uk/index.php?p=1>

The JISC TechDis Service aims to be the leading educational advisory service, working across the UK, in the fields of accessibility and inclusion. Their mission is to 'support the education sector in achieving greater accessibility and inclusion by stimulating innovation and providing expert advice and guidance on disability and technology'. JISC TechDis work with various HE organisations including the Academy and the subject centres. They produce regular updates for the sector and also provide small grants for projects. See links below for more information on [JISC TechDis HEAT Scheme](#) see

http://www.techdis.ac.uk/index.php?p=2_1_7

Summary of projects funded by JISCtechDis are listed by subject centre. See for example Geography Earth and Environmental Sciences projects at

http://www.techdis.ac.uk/index.php?p=2_1_7_28_8