Widening participation in higher education

A Commentary by the Teaching and Learning Research Programme
Across the world, higher education has turned from a privilege available to an elite few into a mass expectation. This Commentary from the Teaching and Learning Research Programme, the UK’s largest-ever initiative in education research, reports on seven unique projects which were carried out to assess the effects of widening participation in higher education.

The research was carried out at a wide range of universities and other higher education institutions in England. It shows that higher education is overwhelmingly positive for most of the people who experience it. But it also proves that there are many ways of going to university. For some, it is an intensive experience in which they receive detailed personal support and tuition. For others, higher education exists alongside employment, family responsibility and other priorities, and is delivered to large, impersonal groups.

We show here for the first time that much of the debate on access to higher education is based on inaccurate assumptions. Centuries of preferential male access to university have now eroded, and most students are female. Many, too, are from ethnic minorities, while young white men from poorer families are amongst the least likely to experience higher education. This research has proved that if we allow for the different performance at school of people from varying social backgrounds, they are equally likely to go to university. The policy implication is clear. Improving primary and secondary schools for all is the route to improved participation in higher education.

While individuals appreciate that higher education adds to their earning power as well as to their life satisfaction, it is not always appropriate for everyone. In a novel study of people who are qualified to enter university but choose not to attend, we show that their choice is a rational one based on their own interests. Here and elsewhere, we find that new forms of education provision are needed if these potential students are to enter higher education.

This research is a unique evidence base on participation in higher education. We are sure that it will be used widely throughout and beyond the UK. We hope you enjoy this Commentary and welcome your response via our web site, www.esrc.ac.uk.

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Chief Executive  
The Economic and Social Research Council
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This commentary has been written by Miriam David with Gareth Parry, Anna Vignoles, Geoff Hayward, Julian Williams, Gill Crozier, Chris Hockings and Alison Fuller on behalf of TLRP (November 2008).

For further information see:
www.tlrp.org/manage/directors/md.html
www.tlrp.org/proj/higher.html
Key dates of UK policy changes on widening participation in higher education.

1919 University Grants Committee formed

1944 Education Act with notion of equality of educational opportunity

1963 Robbins Report on Higher Education Cmnd 2154

1966 Antony Crosland, Labour Secretary of State, gives speech on a Binary Policy for Higher Education

1970 30 Polytechnics created from Local Authority Colleges

1986 Start of Research Assessment Exercise in Universities

1987 White Paper on Higher Education: Meeting the Challenge Cmnd 114

1988 Education Reform Act

- Created Universities Funding Council UFC
- Polytechnic and Colleges Funding Council (PCFC)

1992 Further and Higher Education Act

- created new universities based on former Polytechnics (hence pre-1992 and post-1992 Universities) abolishing the binary ‘divide’
- set up Higher Education Funding Councils for the UK nations

1997 Publication of Dearing Report on Higher Education in the Learning Society

1997 Labour government in power, committed to ‘Education, education, education,’ accepts a revised version of Dearing


2005 Higher Education Act created Office of Fair Access (OFFA) and post of Access Regulator

2006 Department for Education and Skills (DfES) Paper Widening Participation in HE: Creating opportunity, releasing potential, achieving excellence

2007 June, Department for Innovation, Universities and Skills (DIUS) and Department for Children, Schools and Families (DCSF) replaced (DfES)
Introduction

This commentary has been written to provide research evidence on the policies, pedagogies and practices of widening participation in higher education. It is a contribution to current UK policy debates about equity and diversity in student access, successes and outcomes. Its context is the national transformation of higher education in response to the growth of the global knowledge economy.

The evidence we discuss comes from the Teaching and Learning Research Programme’s suite of seven projects on Widening Participation in Higher Education commissioned by the Higher Education Funding Council for England in 2005. The projects have collaborated to produce robust findings about:

- student access to higher education
- success in participation
- educational and other outcomes from participation
- institutional practices
- inclusive pedagogies in and between subjects at different universities
- participation of different age cohorts at different types of university and across the life course.

We provide a strong knowledge base for improving learning for a diverse range of students from disadvantaged socio-economic, ethnic and gender backgrounds across the life course. We examine ways of thinking about class, disadvantage, diversity and equity. We also consider the relevant national policy contexts, including the changes which may be needed if post-compulsory education in all subjects and institutions is to be more equitable.

There is lively public policy debate about the evidence base for widening access and participation to HE. For example, Times Higher Education (24 July 2008) recently asked a range of academics and practitioners to comment on whether investing in widening participation [can] achieve the best results, or whether the government should spend on ‘improving performance among working class students in schools’. Several mentioned difficulties with defining both working class status and disadvantage, and in setting out appropriate evidence or policies. Some cited evidence from the TLRP projects described in this Commentary. They also pointed to the question of political judgement about what is meant by the best result.

The Sutton Trust has been campaigning to ensure that ‘the best and the brightest’ get into what have been nicknamed the Sutton 13, elite traditional universities, rather than ensuring improvements in learning and teaching across higher education (Sutton Trust, 2007). On 25 June 2008, the National Audit Office published a review of the funding of new strategies intended to widen participation and reach under-represented groups (NAO, 2008).
Changing policy contexts: three policy moments from elite to mass to universal participation

Since World War II, equality of educational opportunity has been the bedrock of social and political discourse. It was originally linked to concepts of individual and social mobility, and was then associated with social class or with people from disadvantaged family backgrounds. The 1944 Education Act, and the political transformations from the 1950s through to the 1980s, meant that these concepts became far more heavily contested. New concerns arose, including equal opportunities for education, employment or training for young men from disadvantaged or working class family backgrounds, later for young women, and then mature women, and most recently for ethnic minorities, people with disabilities, older people and members of migrant groups. In current political discourse, equal educational opportunities for individuals beyond compulsory schooling have become a central tenet.

UK government measures to expand access to higher education correspond to three key policy ‘moments’ (Trow 2005) which have changed the scale and scope of the higher education enterprise.

• During the 1960s, Robbins (1963) recommended growth on the principle that ‘courses of higher education should be available for all those who are qualified by ability and attainment to pursue them and who wish to do so’. The Labour government elected in 1964 did not accept university-led expansion. In 1966, Secretary of State Anthony Crosland introduced a binary policy creating a ‘distinctive’ higher education sector within the local authority system. The leading colleges of further education and the new Polytechnics were to offer access to part-time as well as full-time students. Courses at levels below the bachelor degree would provide an alternative route into higher education.

• During the 1980s, Conservative governments reformulated the Robbins principle, making courses available ‘to all those who can benefit from them and who wish to do so’. In the 1987 White Paper which preceded the 1988 Education Reform Act, a revised policy on access included recognition of three routes into higher education: academic qualifications, vocational qualifications and access courses for adults. It also acknowledged the right of institutions to admit people from other routes ‘if fully satisfied of their capacity to benefit’. This change led to rapid growth and ‘mass’ participation. In 1992, under the Further and Higher Education Act, the binary line was abolished and two new sectors were created, a unified higher education sector including the former polytechnics, now universities and a further education sector of newly incorporated colleges, focusing on levels below higher education and, like the former polytechnics, removed from local government control.

• In 1997, Sir Ron [now Lord] Dearing recommended renewed growth, which the new Labour government accepted. The government set out a 50 percent participation target with a reformulated concept of access offering ‘the opportunity of higher education to all those who have the potential to benefit’ and providing courses ‘which satisfy both students and employers’. Closing the social class gap rather than the gender gap became the focus of policies for widening participation in the differentiated and distributed system which had emerged from the closure of the binary divide between universities and polytechnics. This concern intersected with policies on changing demand for undergraduate education. Funding has been targeted at levels below the bachelor degree with a new and shorter work-focused qualification (the foundation degree) introduced for near-universal levels of access and participation.
Ten years of high policy 1998-2008

In the late 20th century, changes in the UK and global economies meant that expanding post-compulsory education, particularly higher education, to meet the needs of the transforming economy became a preoccupation of government. Debate centred on new funding regimes and mechanisms for this expansion, including money raised by marketisation and student fees, and on access for ‘non-traditional’ students.

Understanding these changes became a dilemma for education and social researchers. Their debates highlighted how educational transformations have been problematically linked to economic changes, global and local labour markets, families and communities. The concepts that are used are contested, and include notions of social class, social and economic disadvantage, ideas about women, work, marriage and motherhood, and the increasingly multi-cultural and migrant communities of the UK.

These concepts change over time, but ideas about social stratification, social mobility and equal opportunities in the labour market remain strongly entrenched. Notions of equity and a new notion of diversity, incorporating race as well as social class, disadvantage and gender, are now frequently used in both policy and practice arenas when addressing questions of access, success and the outcomes of education. The balance between privilege, equality and diversity remains a dilemma for policy-makers.

The key debate centres upon questions of access and participation by undergraduate students studying first or bachelor degrees. It has also changed in policy terms from questions of access alone to participation. Contemporary strategies and activities stress the need to stimulate new demand, broaden recruitment, enhance progression and support the achievement of students, especially by ensuring that they complete their studies. The issues are often presented in terms of coupled priorities such as:

- recruitment + retention
- outreach + partnership
- progression into + through
- admission + fair access
- sector + institution.

In November 2003, the Department for Education and Skills decided that official figures should measure participation rather than entry, with those enrolled on a course for over six months being included in the tally. Thus the Higher Education Initial Participation Rate (HEIPR) was born.

Competing ideologies of access and participation inflect these policies and practices. Concerns about ‘working class’ entry to elite universities enjoy high visibility. Debate about the diversity of student participation in a diverse higher education system, or about non-participation, is less common.

In March 2008 John Denham, the inaugural Secretary of State for Innovation, Universities and Skills, proposed the setting up of 20 new universities or higher education centres in towns that did not have any higher education and at present offer only further education. In an article in the Guardian on 14 April 2008 he announced the need to ensure not only adequate access criteria, but also practices to ensure that universities encouraged a broad and diverse range of students. He was quoted as saying: ‘We are going to have to bring lots of people back into university education from the existing workforce…so the most profound changes over the next 15 years will be how the university system responds to the need to draw in a much more diverse group of older students whose demands for study will be very different.'
Introduction to the seven projects

In 2005, the Higher Education Funding Council for England committed £2 million to the Economic and Social Research Council for TLRP research on the UK government’s policies to widen access to, and participation in, higher education. The call for applications offered a broad set of meanings and purposes for policies on widening participation.

Seven projects were commissioned during 2005 to conduct this research. The projects were all based in England because of their English funding. They are:

**Universal Access and Dual Regimes of Further and Higher Education**
led by Professor Gareth Parry, University of Sheffield

**Widening Participation in HE: A Quantitative Analysis**
led by Dr Anna Vignoles, Institute of Education, University of London

**Degrees of Success: Learners’ Transitions from Vocational Education and Training to HE**
led by Dr Geoff Hayward, University of Oxford

**Keeping Open the Door to Mathematically-demanding Programmes in Further and Higher Education**
led by Professor Julian Williams, University of Manchester

**Socio-Cultural and Learning Experiences of Working Class Students in HE**
led by Professor Gill Crozier, University of Sunderland

**Learning and Teaching for Diversity and Difference in Higher Education**
led by Professor Chris Hockings, University of Wolverhampton

**Non-participation in HE: Decision-making as an Embedded Social Practice**
led by Professor Alison Fuller, University of Southampton

Given that all the projects were funded and based within England, our definitions of widening participation focused upon socio-economic disadvantage and diversity rather than more multi-cultural questions about ethnicity, race or the newly emerging issues concerning international students, whether from Africa, Asia, Europe or the other nations of the UK. Two projects did consider the diversity of institutional offerings, examining the different financial approaches (including tuition fees and maintenance allowances) of different types of higher education institution as they relate to policies for further education.

Diverse institutional offerings, of different types of higher education and of subjects, were the focus of our work. In subjects, we looked at topics including the academic versus vocational divide and the criticality of mathematics education. The more traditional research-intensive universities are where the science, technology, engineering and medical (STEM) subjects tend to predominate, and where mathematics is seen as a prerequisite for progression to areas of higher education and to some careers. By contrast, other types of institution in both further and higher education may regard vocational education and training as a preferred route over more traditional academic subjects and prior qualifications.
We also looked at the types of teaching required to meet the needs of a diverse range of students in different types of higher education and in a variety of subjects. Here too, we looked at the contrast between mathematics education and more vocational orientations within different institutions. Some projects also contrasted pedagogies for subjects at a range of institutions.

How each project defined and selected the individuals it would study is crucial to understanding the research and its policy implications. Our definitions of diversity and disadvantage focused mainly on socio-economic and family backgrounds. The projects led by Vignoles and Williams used relatively broad notions of ‘poor’ and ‘rich’ family backgrounds in state schools. The Crozier project made use of a traditional social class educational and occupational split between working class and middle class students. Both of these were linked to gender and ethnicity in the Hayward and Parry projects. The Fuller and Hockings projects used more dynamic evidence of family and educational backgrounds associated with social networks and social capital.

The age of students has become an important consideration for some types of higher education offerings. It is connected to maturity and to whether participation is more likely to be full- or part-time. This question was not a central focus of these projects, although it emerged as important in the findings, especially in respect of different types of learners over the life course.

The approaches we used linked to a range of theories and methodologies within the social sciences. They involved quantitative and qualitative approaches, and different ways of selecting individuals and institutions for study. We used a wide range of research designs which involved economic, educational, policy, sociological and socio-cultural methods.

The evidence we collected, using quantitative and qualitative social research methods, included:

- Administrative datasets from UCAS, HESA, PLASC and others;
- New qualitative and quantitative data on types of individual learners in schools, colleges and higher education, on adult learners and on those not currently participating in higher education;
- Data on individual learners including young people in compulsory education (KS3 to KS4) and those in post-compulsory settings such as sixth forms, FE colleges or further-higher institutions, as well as university students and adult learners with level 3 or 4 qualifications, a group regarded as being ‘potentially recruitable’ to higher education;
- Information from a range of further education and higher education colleges, and from new and old universities;
- New qualitative data gathered from teachers and academics in FE colleges, new and old universities and higher education colleges.
The projects
Universal access and dual regimes of FurtherHigher education

The question guiding this project was whether the division of English undergraduate education into two separate sectors whereby it is provided in both further and higher education institutions impacted positively, negatively or neutrally on strategies to widen participation. FE colleges that provide higher education, and universities that provide FE, are a key part of government strategies to expand participation. FE colleges are expected to attract, prepare and qualify students of all ages and backgrounds for higher education, and to provide undergraduate courses which are aligned with their FE programmes to provide smooth pathways of internal progression. Nevertheless, these institutions belong to one sector even though they provide programmes that are the responsibility of another. Do these arrangements make it simple or difficult for institutions to offer both further and higher education?

The project investigated the impact of this two-sector system. We looked at how national policies engaged with these establishments, how they combined further and higher education, and how students experienced and crossed these boundaries.

In the different countries, institutions which provide both further and higher education are variously styled multi-sector, mixed-economy, dual-sector or comprehensive. In England, there is no shared language or official category for the 270 or so FE colleges, and around 40 higher education institutions that offer courses at both levels. While most have only small pockets of FHE alongside their main provision, a few have significant numbers of FE and HE students. We use the term dual-sector for all such institutions, irrespective of the size and balance of their FHE provision.

Policy

Our policy interviews indicated that the sector divisions and territories created by legislation in 1992 and 1998 owed more to specific and immediate priorities than to any overall plan or vision for the post-secondary system. Separate funding and quality regimes have evolved despite the lack of any developed rationale for a two-sector system. Moreover, they have continued despite a policy shift after 1997 which was intended to produce a larger role for FE colleges as providers of higher education in their own right. No coherent or consistent dual-sector policy has appeared and, there has been no consideration of the provision of further education in institutions of higher education.

Policy development for higher education in FE colleges has been uneven and unstable, bringing neither clarity nor legitimacy to the college contribution. This lack of policy progress is associated with competing interests and perspectives arising from separation within the sector. In practice, HEFCE has been given the lead role in policy formation and implementation. It was the central authorities for higher education that were able to shape policy and practice for part of the work of institutions in another sector. These examples point to strong asymmetries in dual-sector policy approaches and processes. FE colleges have yet to be widely accepted as normal and necessary locations for higher education.

Organisation

Our interviews at a sample of dual-sector establishments highlighted the centrality of decisions about boundaries in their organisational development and management. The picture is complex, with dual-sector institutions taking a variety of shapes and forms, and moving in different directions. This applies particularly in the learning and skills sector, where funding routes, volumes and relationships play an important part in how organisations arrange their FHE. When validation and quality arrangements are included, together with membership of lifelong learning networks, the picture becomes even more complicated.
Although the primary attachment of an institution is to one sector, and relationships to another sector differ in kind and intensity, we found examples of institutions in varying degrees of transition around and across the further-higher boundary. A variety of rationales served to explain these configurations and trajectories. We found that decisions to embrace duality were only partially informed by widening participation strategies, or by the scope for student progression. At the corporate level, market-related considerations were often the most powerful drivers.

Progression

Despite the common presumption that dual-sector settings promote articulation and progression, our fieldwork in four case study institutions suggests evidence to the contrary. Rates and patterns of progression vary considerably within and between our examples. Only one of these establishments had strong and smooth progression as a clear strategic goal, and this was the only one to brand itself a dual-sector institution. The interfaces between FHE are configured in a number of ways. Some are specific and particular, such as those in work-focused higher education. Such programmes, most obviously the foundation degree, are frequently targeted at those already in the workplace and are not expected to draw students from those already enrolled in the college.

In policy discourse, there is a tendency to construe boundaries as barriers. In practice there may be positive and productive features of boundaries, not only negative ones. But more could be done to ensure a strategic approach to the coordination and integration of FHE. Equity agendas and skills priorities are not easily aligned. Yet widening participation strategies require that progression and transfer be given as much attention as access and admission.

The project has five main preliminary findings

Separate funding and quality regimes for FHE have evolved despite the lack of a developed rationale for a two-sector system. Further and higher provision should be regarded as parts of a common enterprise, with mechanisms to recognise and support this structure.

Dual-sector policy development is uneven and unstable, and is led by the sector bodies for higher education. FE colleges have still to be widely accepted as normal and necessary locations for higher education.

The primary attachment of an institution is to a specific sector. Relationships with another sector differ in kind and intensity. Dual-sector organisations do not have a specific mission, and a dual-sector identity is less evident than in some other systems. Decisions to combine further and higher education are only partially informed by widening participation strategies.

Equity and skills agendas are not easily aligned, but require strong and strategic coordination.

The interfaces between further and higher education vary in form and do not necessarily enhance internal progression. An expansion of work-focused higher education will place new demands on the access and transfer functions of dual-sector institutions.

Project team:

Project websites:
http://www.tlrp.org/proj/wphe/wp_parry.html
www.sheffield.ac.uk/furtherhigher
A quantitative analysis of widening participation to higher education

Our project’s main aim was to discover whether individuals from poorer backgrounds or from particular ethnic minority groups are still less likely to attend higher education if one allows for their prior educational achievement, particularly their GCSE and A level grades. A finding that participation rates are similar among equally qualified individuals, regardless of their social or ethnic background, would suggest that gaps in participation rates are caused by educational inequalities in schools. Our analysis has enabled us to determine whether the big disparities in participation rates between groups of students, such as those from different socio-economic groups, are attributable to different choices made at age 17 and 18, or whether earlier educational achievement plays a significant role. The latter would imply that factors which apply on entry into higher education at the age of 18, such as the costs of attending university, may be less important in determining participation than students’ earlier achievement.

Another aim of our project was to describe and understand the types of higher education accessed by different types of student. We have investigated the extent to which students from different socio-economic or ethnic groups access higher education institutions that are more or less research intensive.

Our work on participation relies on a new combination of large scale, individual-level administrative datasets that have been linked by the Department for Children, Schools and Families (DCSF) and the Department for Innovation, Universities and Skills (DIUS). We have been granted access to these datasets that enables us to follow every state school student in England who was in Year 11 in 2001/02, and we have data on children from age 11 through to age 18. We are able to observe whether they continued into higher education in 2004/05 or 2005/06. This means that we can look at the academic trajectories of pupils from poorer socio-economic backgrounds and ethnic minority groups and identify when their relative education achievement falls away, if indeed it does.

We found that children from poor backgrounds remain far less likely to go to university than more advantaged children. Figure 1 illustrates that children eligible for Free School Meals are far less likely to attend university. The large raw gap in participation between poorer and richer students is obvious from Figure 1. However, poorer and richer students have similar participation rates once we allow for prior achievement from Key Stage 2 to Key Stage 5. Students with similar levels of achievement in secondary school are more or less equally likely to participate, regardless of their family background. This confirms the importance of secondary school achievement in explaining the large socio-economic gap in participation. Broadly, the reason why poorer students do not access higher education to the same extent as their more advantaged counterparts is not because of choices being made at age 18, but because disadvantaged students do so poorly in secondary school.

1 In the analysis we use a number of different indicators of the socio-economic background of each pupil and do not rely solely on the FSM indicator shown here.
Our work also shows that ethnic minority students are more likely to participate in higher education than their White British peers. Once we allow for prior achievement, all ethnic minority groups are significantly more likely to go to university than White British students.

Poorer students who do go to university are more likely to attend lower status institutions, where status is measured in terms of research quality and institutional prestige. Once we allow for the prior achievement of state school students, poor and rich students appear to attend universities of similar status, although we were unable to consider privately-educated students, who will be disproportionately represented in the highest quality universities. Our analysis of state school students suggests that interventions to raise achievement in secondary school are likely to be needed to ensure that poorer students access the research-intensive universities and go on to earn more in the labour market.

We concluded that the gap in participation between richer and poorer students is largely explained by the weak academic achievement of poor children in secondary school. These findings suggest that widening participation requires intervention well before the point of entry into higher education if the aim is to increase the attainment of children from poorer backgrounds at earlier ages.

**Project team:**
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**Project websites:**
http://www.tlrp.org/proj/wphe/wp_vignoles.html
http://www.tlrp.org/project%20sites/WPinHE/index.html
Learners’ transitions from vocational education and training to higher education: degrees of success

Policy-makers and educationists assume that the provision of many Vocational Education and Training (VET) pathways in 14-19 education will increase educational opportunities for young people and widen access to higher education. This project tests this assumption and investigates the challenges learners face when they apply to and enter higher education from a VET background. The project combined different administrative large-scale datasets, primarily from UCAS, HESA and ILR, to follow students from their level 3 qualifications into higher education, and examine their success once they arrived there.

The proportion of students entering full-time higher education with vocational qualifications increased from 18 to 25 per cent between 1995 and 2004. However, this growth is due to an increase in the number of individuals combining vocational and academic qualifications, which is up from 4 to 14 per cent. Over the same period, the proportion of students entering full-time higher education with vocational qualifications only decreased from 14 to 10 per cent.

Increasing or widening participation?

The analysis reveals that including students from VET backgrounds does widen rather than simply increase participation. Those applying with VET qualifications are on average from more disadvantaged backgrounds. It is also worth noting the high proportion of men in the VET pathway. Fifty-two per cent are male, a higher proportion than in any other pathway including the general academic route, access and foundation courses, and other qualifications.

Compared to traditional A level students, those with VET qualifications have a much higher risk of not obtaining a place in higher education, and of dropping out after their first year. The picture is much more favourable for those combining the two pathways. They are nearly as successful at entering and completing higher education as those with only general academic qualifications.

VET students are very unevenly distributed between institutions. Controlling for subject choice, they are heavily under-represented in higher-status universities, irrespective of whether the hierarchy of HEIs is represented in terms of RAE results, historical groupings (pre- and post-1992 universities), QAA scores, or UCAS tariff-point intake criteria. While students from a VET background contribute to widening access, it remains a question whether this distribution across HEIs constitutes fair access for them. This uneven distribution is a result of processes operating at the level of both students, with their own perceptions and self-limitations, and institutions, which can have problems tracking and admitting people with non-traditional qualifications.

The team used two questionnaire surveys and follow-up interviews with students in three subjects at five institutions to follow up on the secondary data analysis and trace experiences of the learning environments for higher education students with a VET background.

The descriptive data analysis illustrates how diverse the student body has become. It shows significant differences in the age and gender composition of the student body across the three subjects and across types of institution, including pre- and post-1992 universities as well as FE colleges. Substantial differences also exist in terms of the life context of students and how they spend their time outside their studies.
First year students who had undertaken VET before they entered higher education describe their transition into it as a complex and often difficult process. Their decision-making in terms of institutional and subject choice is highly individual. Difficulties perceived by students include:

- lack of preparation within the VET context for what is expected of them in higher education;
- demands posed by specific study areas (for instance mathematics) and assessment tools (for instance, essays and portfolios);
- finding a balance between their studies, family commitments and the jobs they need to pursue to finance their studies.

Students need to be able to draw on support to overcome these difficulties. Existing support mechanisms are often not appropriate for dealing with the complex issues faced by students with a VET background.

Interviews with lecturers and admissions staff showed that their knowledge about vocational qualifications varies. For most programmes in our sample, there are formal mechanisms for judging the quality of applicants with vocational backgrounds or qualifications, but these mechanisms are often not very transparent.

The implications of the findings are that attempts to create stronger links between VET and higher education programmes and to change perceptions of potential applicants through outreach, have not yet resulted in evenly distributed access to higher education. In addition to policy instruments that intervene early in an individual’s pathway to raise attainment at 16, additional mechanisms are needed to achieve changes which are necessary in institutional and individual behaviour.

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**Project websites:**
http://www.tlrp.org/proj/wphe/wp_hayward.html
http://www.tlrp.org/project%20sites/degrees/index.html
Socio-cultural experiences of working class students in higher education

We studied four higher education institutions. They were a post-1992 university, Northern; a civic pre-1992 university, Midland; an elite university, Southern, and an FE college where the students undertake foundation degrees, Eastern. They differ in wealth, mission, admissions policies, and location. These factors impact upon the students’ socio-cultural and learning experiences.

Working class students at the four institutions (chosen using ONS SEC categories SC3-8) differed in age, gender, ethnicity, qualifications, domestic responsibilities and finance. The middle class (ONS SEC categories SC1 and 2) students at all the universities had more knowledge of, and preparation for, university life and what to expect of it than did the working class students. Many middle class students expressed a strong sense of entitlement about going to university, engendered by their families and schools, while for the working class students, attending university was more through serendipity than planning, even for those at Southern. A key difference between students at Southern, and those at Midland and Northern, is self-confidence. The middle class students at all three universities are self-assured. Southern students see themselves as successful learners and high achievers. By contrast, some students at Northern express a lack of self-confidence and think that they are unworthy to be at university. Students’ qualifications, their route to university and their school experiences all help form their learner identity.

Institutional Effect and Learner Identities

Our data suggest that social class processes are played out in the students’ experiences via what we term an institutional effect. Our study sites each have an ‘institutional habitus’ linked to their organizational culture, ethos and wider socio-economic and educational cultures. There are greater differences in experience between universities than within an individual university. Nevertheless, working class and middle class students have different experiences even at the same university.

Expectations of student behaviour, levels of commitment, programme delivery and subjects differ between institutions. Northern and Midland provide generic rather than individual student support. At Southern, resources are targeted to ensure that each individual succeeds, with students receiving detailed feedback each term on how they are progressing in relation to their degree classification.
Widening participation in higher education

**Socio-cultural experiences of working class students**

The social field of the university offers opportunities for enhancing or compensating for students’ habitus and for the acquisition of social and cultural capital. At Southern, the social opportunities were wide-ranging. The social life at Midland was a central part of the university experience. The students’ union was the hub and provided extensive society and sporting opportunities. The halls of residence, structured through a village type of organisation, provided the social field through which students were enabled to make friends and to associate with people from different social classes, ethnicities and subject areas.

At Northern the social facilities were limited. The students we studied had little time to use them and did so rarely. The lives of the Northern and Eastern College (working class) students did not revolve around the university. These students had a more homogeneous experience than that of students from Southern and Midland. It differed little from their social experience of life before university.

Belonging and fitting in, a central theme in work on widening participation, is complex, since it involves students’ identities both as learners and socially. At Northern, the working class students fitted in socially with some ease. As learners, several who felt passionate about their subject and were committed and hard-working felt at odds with their peers. They tended to be more instrumental learners than the middle-class students we sampled, and had a laissez-faire attitude to turning up and doing the work. Working class students at Southern are often anxious and socially overwhelmed but they are comfortable academically, since they find their academic and learner identities validated at Southern. For Midland students there is more diversity in all respects, and more opportunity for students to find their niche and meet people with whom to identify. Students can succeed without participating in university social life, but the social opportunities mean that students can access information from peers, and increase their dispositions to learn and progress in new ways.

**Reconstructing identities**

The working class students in our study expressed pride in their class identities and in their own achievements, given the struggle against hardship and structural inequalities they had experienced to get to university. They were aware of and had experienced class prejudice as well as prejudice relating to race and gender. They expressed a sense of difference and not fitting in, but also asserted that they were not prepared to accept that this makes them inadequate or inferior.

Social and cultural experiences at university make students confront their own difference both in the university and at home. Through this process they deconstruct and reconstruct their identities. Some distance themselves from their old self, but most seek to manage multiple or hybrid versions of themselves with particular ethnic and gender dimensions. For all students, wherever they are based, the university experience is one of change and also of challenge. The students are at the sharp end of both of these dimensions. For most, it is clear that the university experience has allowed them to gain control of their pathway in life.

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A question of value: keeping open the door to mathematically demanding programmes in further and higher education

This project aimed to improve our understanding of how to extend and enhance learning in mathematics, especially by those ‘on the edge’ of further participation. Our study surveyed students by large-scale questionnaire and by a series of interviews as they progressed through their GCE AS year. We also studied contrasting programmes and pedagogies. We conclude that these can make significant differences to learning outcomes for these students. They can affect drop-out rates and the disposition to continue to study mathematics, sometimes in the face of injurious policy and institutional influences.

Key policy findings

Programmes can make significant differences to participation, including drop-out, and to the value students attach to mathematics. They should be engineered to engage students in the uses of mathematics, for example via substantial mathematical modelling tasks assessed through coursework.

Connectionist teaching practices which encourage understanding, rather than transmissionist ones that merely seek to transplant knowledge from the teacher to the learner, can make a significant difference to students’ dispositions towards mathematics and to their understanding, especially for students who start with lower GCSE grades. If policy seeks to include more students in mathematics, and to promote outcomes such as understanding and disposition, connectionist teaching should be valued and encouraged.

A culture of ‘performativity’ in colleges can reinforce transmissionist methods in which teachers teach to the test. This can be damaging to learners. Policy could reduce the pressure to teach to the test by giving value to learning outcomes involving deep understanding, and to the disposition to continue studying mathematics.

Research process and results

The study sought to find out how learners’ engagement in different teaching and learning practices can develop a mathematical disposition or identity, and how teaching and learning practices are shaped by institutional and policy cultures.

A large sample questionnaire survey of students’ dispositions and performance was conducted on three occasions, early in the AS course, at the end of the year of study before the AS exams, and in the second year of college when AS results were known and university subject decisions were being made. The sample had sufficient numbers of students following each of two contrasting programmes, traditional AS Mathematics, and AS Uses of Mathematics, which was designed to widen participation in mathematical studies. Instruments were constructed to measure students’ self-efficacy with mathematics, their disposition to study more mathematics in higher education in the future, and the degree of transmissionism of teachers’ self-reported practices. As a result we find the effect of programme and pedagogy on students’ learning outcomes.
These data were supplemented by case studies in five sixth-form FE colleges, where we observed lessons, interviewed teachers and managers, and interviewed a select group of over 40 students on up to four occasions. The students’ interviews tracked their view of mathematics, and their aspirations for higher education and for their future generally. The case studies sought to develop insights into learning and teaching processes and explanations for survey results. They provided explanations and insights into how different pedagogies come about, and how they influence learners’ participation and identities.

The survey analysis reveals, for instance, that the Uses of Mathematics programme encourages more students with lower grades to persist and to pass at AS level than traditional programmes, although Use of Mathematics is a terminal maths exam at present and does not lead on to a full A2 A level. Students who have taken Uses of Mathematics have a stronger view of the ‘use value’ of the subject. Students on traditional courses regard mathematics as a means of exchange, a currency with which to gain access to certain university or career options, in some cases literally to ‘become a success’ with a lucrative future.

Students, teachers and college managers are acutely aware of the currency of qualifications and grades and all make strategic choices on this basis. Depending on their roles, they may choose to opt out of maths in favour of other courses, to teach to the test, restrict course choices, or even close courses that do not add value appropriately. For students, “when troubles come” (for example in the shape of maths grades) then either “aspirations adjust” or extra reserves are required to “stay on course”.

The value of mathematics

Addressing the ‘value’ of mathematics is perhaps where policy can intervene, but interventions are likely to have perhaps unintended and even malign effects. For instance, many students are steered away from mathematics options at present because colleges judge that they will not get the reward required for teaching it.

Additionally, teachers may broaden their pedagogic approaches if ‘teaching to the test’ is seen not to be rewarding. It would be worth exploring assessments that require more understanding or evaluations of students’ dispositions to further study.

We found a few case studies where strongly connectionist teaching made a real difference to students with a weak mathematical background studying the traditional programme. The ideal case involved teaching that made processes of deep learning visible. The classroom was ‘social’, encouraging communication with and about mathematics, ensuring that procedural mathematical rules are underpinned by conceptual understanding and reasoning. Close analysis of classroom practices reveals how this approach can engage learners in mathematics as a collective, joint activity, and how positive dispositions to mathematics can come to be formed. This has implications for developing expertise in mathematics teaching, but teachers’ values remain critical to the way mathematics is taught.

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Learning and teaching for social diversity and difference

The aim of this project was to facilitate the development of inclusive learning environments and to enhance the academic engagement of higher education students, by informing policy and practice in university teaching. The research focused on the ways in which teachers’ and students’ identities played out in university classrooms and influenced academic engagement in the context of increasing student diversity. Having explored the social, cultural and educational backgrounds and experiences of students in the year before and the first year of university, and of eight university teachers, we then explored how their identities influenced learning and teaching, in a range of subjects and at two different universities.

The concept of ‘academic engagement’ was used in this study, not only to refer to learning associated with a deep approach, but also to learning in which the student draws on her own identity and background and those of her peers in coming to know and understand. This involves learning that is personally meaningful and is influenced by wider disciplinary, economic, social, and political factors.

Diversity: An inclusive concept?

Unlike some interpretations of diversity, this project does not focus on race, gender or class alone. Our interpretation includes all these as well as differences in age, family background and situation, prior education, work and life experiences. All these were found to influence learning and academic engagement.

The students from the schools and colleges participating in the study had limited knowledge of what learning at university would be like, gained from second-hand informants including their teachers’ own, often dated, experiences. They had come to depend on their teachers for individual guidance and ‘right answers’ that some acknowledged they could not expect at university.

In the universities we studied, we worked closely with teachers and students in a range of subjects. We observed, video-recorded and analysed classrooms for incidents of academic engagement and disengagement. These incidents were explored further in interviews and discussions with teachers and students. DVDs and notes were compared for the two universities between teaching staff and researchers.

The findings suggest that whilst students feel a strong need to fit in at university, to make friends and enjoy a sense of belonging, when it comes to learning in the classroom, they want teachers to recognise them as individuals with particular needs and interests. They value teachers who make time for them, who willingly engage with them outside the classroom, who share their own recent research or professional knowledge and experiences, and who show enthusiasm and passion for their subject. As this high-level contact was not always their experience of university teaching, students in this study would turn to their peers for academic and social support. This sharing of support was most obvious amongst students taking coherent professional courses where a strong shared vocational identity had already developed.

Throughout this study, terms such as ‘diverse’ and ‘non-traditional’ were used by teachers and other staff to refer to students who they believe come to university without the necessary skills, knowledge and cultural capital to excel. We have tried to avoid the term ‘non traditional student’ since it inadequately describes the rich diversity of students that we teach. Furthermore, teaching based on this deficit view of students tends to overlook the different knowledge, skills and experiences that students now bring. This approach can alienate and disengage students.
Academic engagement or disengagement

Students tend to persist with their courses even when they feel disaffected and disengaged, but some do disengage or withdraw. When this happens, they take with them the knowledge, skills and experiences that they might otherwise share and develop with others. So we challenge universities to re-examine their conceptions of students and diversity and to develop pedagogies for embracing and engaging the rich resource of knowledge, skill and experience that a more diverse community of students brings. This involves developing ways in which teachers get to know their students better, to reflect on their own identities as learners and teachers, and to understand the impact of their identities on the learning and teaching environment.

During this study, teachers said that their attempts to adapt their teaching in response to the interests and needs of their diverse student groups had been delayed or frustrated by institutional procedures designed to assure ‘quality’, or by systems set up to maximise the economic efficiency of teaching. For example, classrooms equipped with the latest technology for efficient delivery of content, built to accommodate increasing numbers of students, leave little scope for teachers to innovate, change and create inclusive pedagogies. Action is therefore needed to empower and enable teachers to develop inclusive pedagogies and curricula that take account of the diverse interests and needs of students.

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‘Non-participation’ in higher education: decision-making as an embedded social practice

Little previous research has focused on decision-making amongst adults who have not participated in higher education. This project examined how adults’ decision-making about higher education is embedded in networks of family, partners and friends, and the extent to which future participation is viewed as a possibility.

The research focused on the networks of 16 adults (aged 21 or over) who were ‘potentially recruitable’ to higher education. We defined this as having their highest educational qualification at Level 3, the level normally required for entry to higher education in the UK. These individuals acted as entry points to their ‘networks of intimacy’, which included people with both lower and higher educational attainment than their own.

Our project involved two overlapping and interacting phases. Phase 1 involved desk research and interviews with 32 key informants representing national, regional and local organisations with policy and practice interests in higher education participation. Phase 2 consisted of two interviews with each of the 16 entry-point people and single interviews with members of their networks. In total we interviewed 107 individuals with a wide range of socio-economic characteristics, previous levels of educational attainment and employment backgrounds. In addition to our 16 entry points, a further 24 sample members were also qualified to Level 3. Ninety per cent of the Level 3 sample possessed vocational qualifications, often acquired several years after leaving school.

Our evidence indicates that no agency currently takes responsibility for providing impartial advice and guidance on educational and employment decisions to adults across the life-course and, specifically, in relation to higher level study opportunities. We have found no evidence of universities directly reaching out to the type of people participating in our research. This meant that they mostly relied on the advice and influence of their informal networks.

Our entry points are largely located in social networks which are characterised by relative economic and employment stability. They mostly see little need to disrupt their current employment and domestic circumstances through pursuing higher level qualifications. This is a population of ‘ordinary’ people whose participation or otherwise in higher education has not hitherto been considered a public issue.

Higher education has expanded in recent years, and increasing numbers of younger network members have been to university. They are ‘participation pioneers’ whose experiences and perceptions appear to be critical in shaping the perceptions of older network members, not always positively. By contrast, the example of network members who have experienced higher education as mature learners exerts a generally positive influence on the imagined social capital of other members. This underlines the multi-directionality of network influence.

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Project websites:
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http://www.education.soton.ac.uk/research/field_projects/?link=project_details.php&id=178
Perceived value of learning

Despite having predominantly negative experiences of compulsory schooling, the potentially recruitable have overwhelmingly positive attitudes to informal and formal learning as adults, and many have taken part in such learning. However, these individuals’ support for formal educational opportunities is strongly associated with their perceived worth and utility. Opportunities in the workplace appear to provide a powerful pull on career development and participation decisions. Increasing the availability of work-related higher level provision with direct employer support is likely to release the latent employee demand that our research is uncovering.

Implications

- Organisations (including colleges, universities, employers, Learn Direct, Family Learning Centres, and the new government sponsored adult careers initiative) that can facilitate people’s access to educational resources need to develop impartial adult information, advice and guidance (IAG) services and ensure that these are readily accessible to those currently not participating at Level 4. IAG services made available through people’s employment are likely to be particularly appealing to potentially recruitable adults. Guidance workers would benefit from a deeper understanding of the embedded nature of educational decision making, including the multi-directionality of influences and the limitations of approaches which exclusively target individuals rather than social networks and which focus on younger generations.

- The Leitch Report (2006) has called for at least 40 per cent of the workforce to be qualified to Level 4 by 2020, from the current rate of 31 per cent. Policy makers need to make the case to those already qualified to Level 3 and particularly those with vocational qualifications that they are eligible to enter higher education and that there are benefits to participation such as the availability of high quality provision, increased job security, promotion, higher salaries and more career opportunities.

- Additional factors that influence the decision to participate, and might increase take up at Level 4, include the availability of easily accessible and ‘affordable’ provision in the community and the workplace, and via flexible (including part-time) delivery modes. Encouraging more sectors and more employers to make connections between workforce development, the sustainability of their organisations and the fulfilment of business goals will help create reasons for adults to pursue higher level learning.

Our findings suggest that the network approach to exploring educational decision-making is a very productive one, yet is under-utilised within educational research. This limits the generation of messages that could help policy makers intervene more effectively.
Implications for further research

Taken together, these seven unique projects demonstrate that recent British government policies on widening participation have indeed led to increasing opportunities for learners from diverse families and disadvantaged socio-economic backgrounds.

However, these policies have not led to fair or equal access to equal types of higher education that may lead to equal benefits in the graduate or professional labour markets.

Our detailed findings are related to HEFCE’s Strategic Plan for 2006-2011, revised in May 2008 and can help develop further research:

- Gender access to higher education is no longer seen an issue for women, but centres more on young men with vocational qualifications. Unaddressed questions remain about the benefits of higher education for women in graduate and professional labour markets.

- The findings centre on the backgrounds of students defined in terms of being poor, disadvantaged, or working class, and to a limited extent on ethnicity.

- There is also evidence of a key issue in relation to the age of students.

- Some of our evidence suggests that intervention to improve participation rates needs to occur well before the traditional point of entry into higher education at 18 or 19 years old if the attainment of children from poorer, disadvantaged or working-class backgrounds is to be improved. Key Stage 4 in state schools emerges as an appropriate point.

- A focus is needed on subject mixes and choices, especially with mathematics education and with Vocational Education and Training before university entry. Different types of mathematics and vocational education may lead to almost diametrically opposed types of access to higher education.

- Our evidence shows that students’ identities with respect to mathematics depends upon the quality of the teaching they have received and their prior experiences of learning within compulsory education.
• Post-compulsory educational offerings are diverse. They are structured according to prior socio-cultural contexts and learning experiences and socio-economic contexts and backgrounds.

• Policies and practices developed to promote and provide the opportunity to participate successfully in higher education need to be more sensitive to the diversity of students and to the different structures of institutions and subject offerings.

• Policy interventions should either encourage high-achieving ethnic minority students to apply to research-intensive pre-1992 universities, or alter the differential funding of universities so that universities are not defined solely by their research ratings in an ever more complex system of metrics.

• There is also a question of the range of subjects studied at different types of university. Universities which are regarded as academically prestigious provide more science, technology, engineering and mathematics (STEM) than other institutions, so that applicants to them need more mathematics education.

• The question of student retention versus drop-out can be seen in a new way if we appreciate that diverse students acquire some qualifications that provide them with useful skills and knowledge for lifelong learning.

• The current policy of withdrawing funding for students with equivalent or lower qualifications damages lifelong learning.

• University teachers need to develop pedagogies that engage socially, culturally and educationally diverse students more effectively, in both traditional and new subjects.
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- No. 39 - Widening Participation in Higher Education: A Quantitative Analysis
- No. 40 - Combining Policy, Organisation and Progression in Further and Higher Education
- No. 41 - Learning and Teaching for Diversity and Difference in Higher Education: Towards more Inclusive Learning Environments
- No. 42 - Degrees of Success: Learners’ transition from Vocational Education and Training to Higher Education
- No. 43 - Non-Participation in Higher Education: Decision-Making as an Embedded Social Practice
- No. 44 - The Socio Cultural and Learning Experiences of Working Class Students in Higher Education

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