Higher Education without Academics?

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Introduction

This is a case study of an innovative MSc programme, developed and delivered by senior staff in industry in partnership with academia. The main themes are employer engagement and work-based learning; both of these are central to the development of a strategy that harnesses the skills of both practitioners and academics. The programme described here is the MSc in Transport Planning and Practice, offered by the University of Surrey, now in its fourth year.

The approach adopted needs to be seen in the wider context of current government thinking on the future role of universities. 'Higher Ambitions', the 10-year strategy for higher education, launched by the government on 3 November 2009, identifies six key measures. Two are especially pertinent here:

• 'Business to be more engaged in the funding and design of programmes, sponsorship of students, and work placements'

• 'Creating more part-time, work-based and foundation degrees to make it easier for adults to go to universities, with routes from apprenticeships through to Foundation Degrees and other vocational programmes.' (BIS, 2009)

Shortly after the launch of Higher Ambitions the government also published the National Skills Strategy: Skills for Growth. In this, the debate moves from the role of universities to the nature of the employment market and the skills needed. The strategy emphasises:

'As we emerge from the banking crisis and rebuild the British economy, the skills system needs a stronger focus towards strategic skills. Businesses need to contribute more to shaping demand for skills, and learners need to be able to choose where they train and what they study to drive competition and improve courses.' (BIS, 2009a)

The case study outlined here might almost be seen as anticipating the publication of these two documents and while we don't make that claim, these trends add impetus for the principles and practices we describe. They may be relevant for other professions and at other levels of education.

We describe a strategy to extend employer engagement to a deeper level than is usual in higher education, through the development of a masters programme focused on work-based learning where the practitioners do all the teaching. Universities are used to inviting leading practitioners to give guest lectures. In this case, the University of Surrey invited practitioners to consistently engage in Higher Education in a way that the authors have not seen elsewhere in engineering. We review the preparation and delivery over the first three years and comment on an initial evaluation of problems and successes.

The key stakeholders in this process, apart from the practitioners actually involved in the teaching, are no different to many other vocationally oriented programmes, but greater prominence than usual is given to the role of employer organisations. The stakeholders include:

• The university as an organisation, and individual staff involved

• The employer organisations and their staff who provide the specialist expertise

• Part-time students on the programme (often sponsored by the participating employers)

• Full-time students seeking employment on the basis of their new skills

• Customers of the employers who benefit from better service provided by skilled staff.

Conceptual development

The idea of a practitioner-led programme in transport planning was proposed by Surrey County Council staff in 2003 — soon after the transport planning profession had reported a skills shortage in several journals (Richards, 2002; Harman and Lyons, 2003). Figure 1 shows the main features of the concept.

Staff from the University of Surrey then invited representatives from consultancy firms and local authorities to join a Steering Group whose role was to:

• Set out the needs and expectations of industry

• Guide the scope and content of the programme

• Encourage able graduates to participate in the programme

• Put forward suitable staff to become practitioner teachers.

Surrey County Council staff with experience in both higher education and the industry acted as an initial bridge between the two and guided the early development of the programme; subsequently, the university took over the responsibility for leading the development as well as for the detailed administration.

Early work of the steering group included reviewing the needs of industry and examining the scope and content of current masters programmes in transport planning; it decided that the new programme should complement existing programmes rather than compete with them. This led to the conclusion that the initial focus should be on current practice rather than theory.

The steering group agreed some overall objectives which were to:

• Encourage graduates from a range of backgrounds (economics, geography, engineering etc.) into transport planning

• Allow staff already working with Local Authorities, regional government or consultants to study part-time and to have their achievements in the workplace recognised as contributing towards the qualification

• Maximise the use of workplace projects and schemes in the training process by recognising the
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academic value of aspects of professional work
• Equip graduates from diverse backgrounds with the knowledge and skills required to work on planning, design or delivery of transport schemes
• Introduce students to the principles of transport planning and other transport topics.

Additionally, the objectives of the initiative were to:
• Develop a new industry model of higher education
• Enhance the relevance of the programme through use of senior industry-based practitioners as associate lecturers and project managers
• Provide continuing professional development for staff involved in delivering the modules
• Promote the profession and guide people to professional qualifications
• Make research facilities and results more readily available to industry
• Strengthen links between industry and universities
• Provide a forum for sharing good practice.

An early decision by the Steering Group was that the programme should be consistent with other postgraduate programmes and build using:
• four core modules in transport planning - leading to a Certificate in Higher Education
• four optional modules in related subjects - leading to a Diploma in Higher Education
• a research project equivalent to four more modules - leading to the full MSc.

A key principle was to maximise the element of work-based learning. With one optional module being work based as well as the research project, it is possible for a student to obtain the full MSc on the basis of just seven modules studied on campus.

Enabling distance learning was important so that students could reduce their attendance on campus to a minimum and this created a significant opportunity for students from further afield, including international students, to enrol.

Preparatory work
As well as guiding the development of the programme, industrial partners took responsibility for leading each of the specialist transport planning modules.

The university nevertheless oversaw the development of material and provided quality control on the overall process for delivery, assessment and presentation of material.

The next main task was to prepare detailed programme documentation for programme validation. This involved following standard university procedures for quality assurance and included drafting validation documents to set out the rationale for the programme, identifying the resources needed, refining the learning outcomes to match university descriptors for level M modules, and drafting a student handbook.

Figure 1  Overview of practitioner-led teaching

Senior transport planners as practitioner teachers
• Guidance to practitioners in the preparation of programmes and learning resources

Practitioners teach their area of expertise through distance learning, seminars and workshops

New cohort of transport planners
• Coordination of delivery of programmes
• Monitoring and evaluating (i.e. quality assurance)
• Validation of attainment and qualification

Well-trained trainees deliver improved services

Academics as facilitators with experience in teaching, assessment and quality assurance in education
• Coordination of delivery of programmes
• Monitoring and evaluating (i.e. quality assurance)
• Validation of attainment and qualification

Employers and customers
• Guidance to practitioners in the preparation of programmes and learning resources

www.seda.ac.uk
the university's web-based learning management software.

Programme delivery
The pattern adopted for teaching core modules was an afternoon and evening on alternate weeks. Part-time students taking two modules at a time would then need to be out of the office for just half a day each week. At that rate they would complete in two years.

The University arranged to spread the teaching load so that no one company had too onerous a task. With about ten companies involved and some providing two or three staff, the total number of staff was significantly higher than is usual, with some teaching just one half-day session.

The use of ULearn was a crucial component in the delivery of the programme to all students – both campus-based and distance learning. ULearn allowed access to all learning material, provided the mechanism for submitting assessments and encouraged communication between students when away from the campus.

A typical half-day teaching session included a formal lecture, discussion and tutorial exercises. Some modules included practical work to collect field data or investigate examples of transport infrastructure, and others used ICT facilities to familiarise students with key transport planning software.

Evaluation
Evaluation of the new programme has been ongoing with review and discussion in the steering group, the student liaison committee and meetings with external examiners. Also, after three years of delivering the programme, there was a formal evaluation through the University Review and Validation process.

Several issues that emerged concerned learning and teaching:
- Academic level. Is the level of learning at M level and consistent? How can we ensure consistently high quality feedback at a masters level? How can traditional academic requirements (e.g., use of academic journals) be reconciled with the programme focus on current practice?
- Maths and English requirements. What level of mathematics can be expected from students of different professional backgrounds? Should harder maths be limited to optional modules? What level of written or oral communication should be expected?
- Distance learning. How effective was the programme for distance learning and what support and resources are needed? How should distance learning be developed to run in parallel with the contact sessions?

Some issues related to student experience:
- Associate lecturers. How do students respond to the number of different lecturers and their work being set and marked by practitioners? Would they have realistic expectations? Would they be fair and consistent?
- Part-time and full-time students. How do the abilities and expectations of each group differ and how can the differences be managed?
- Student support. Was there sufficient support available for different groups of students?
- Are the roles of student, teacher and practitioner as clear cut as they used to be? How can the contribution of experienced students be integrated?

The university was well aware of potential difficulties for students, and ensured that the Programme Director was a focal point and was available to liaise. Student feedback from student liaison committees and the university course assessment process revealed a high level of satisfaction. They liked the variety and, most importantly, they appreciated that they were being taught by senior professionals who were up to date, experienced and in touch with the industry.

In addition, there were issues relating to the practitioners:
- How could the large number of associate lecturers be managed effectively?
- How effective was the limited training in enabling practitioners to become associate lecturers in a limited time and for limited input?
- How could they juggle priorities of teaching with the day job?
- How could practitioners be properly reimbursed for their input?
The experience of practitioners as associate lecturers was gleaned primarily from informal feedback when they came to the university for training, teaching or meetings. Most who participated were self-selecting and enthusiastic. In general they had very high standards and were sometimes disappointed to find that students did not respond as a junior member of staff would be expected to! They were grateful for the training provided and also saw the value of this within their organisations.

Issues relating to the University are summarised in Table 1 below together with comments on how issues were resolved.

<table>
<thead>
<tr>
<th>University group</th>
<th>Priorities</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Programme director and colleagues</td>
<td>Administration</td>
<td>Both demand a lot of time and energy especially at the start. Tasks include administering contracts for practitioners, liaison with students and practitioners and liaising within the university</td>
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<td></td>
<td>Programme development including preparation of further transport-related options</td>
<td>Largely through the industrial partners though there is a much wider market including international students</td>
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<td></td>
<td>Recruitment of a cohort of suitably qualified students (mainly part-time)</td>
<td>Requires good planning and more lead-in time but industry works well to deadlines. Three-year contracts place responsibilities on companies which have been respected</td>
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<tr>
<td></td>
<td>Timing issues especially for exam preparation and marking and availables of lecturers</td>
<td></td>
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<tr>
<td>University administration</td>
<td>Teaching quality</td>
<td>The quality assurance process at the time of programme validation led to commitment to train practitioners</td>
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<tr>
<td></td>
<td>Income and resources</td>
<td>Successful recruitment ensured an income stream sufficient to cover costs of contracts with partner organisations</td>
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<tr>
<td>University Centre for Academic and Educational Development (CEAD)</td>
<td>Supporting practitioners to be able to teach at a masters level and to meet (some of) the conceptual demands of working at this level</td>
<td>The content of a traditional PG Cert programme cannot be covered in a four-day short course where time for research and reflection is limited. There is a danger of reductionism, but the enthusiasm and subject knowledge of practitioners helps to compensate for this</td>
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<tr>
<td>External examiner</td>
<td>Ensuring that learning and assessment are at M level</td>
<td>Learning outcomes were modified to ensure standards were sufficiently high</td>
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<td></td>
<td>Evidence that students are required to refer to academic journals</td>
<td>Much of the expert knowledge needed comes through government guidance as this is where the current practice is set out</td>
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Table 1 How University issues were resolved

Conclusions
Whilst there are areas for further development, the overall successes were recognised as substantial. This had been an ambitious project from the start, bringing in a group of commercial and local government organisations and their employees and introducing them to the raison d'être and some of the processes of higher education, to enable the introduction of leading-edge professional practices for students. Professional bodies accredited the programme, and students and practitioners reported largely enjoyable and satisfactory experiences. The ultimate goal of providing a new pool of experts in this field is well on its way to being achieved.

There have been many challenges over the six years and some of them will be familiar to Programme Leaders everywhere; many have been met by good planning, appropriate contact and good administrative support by the University. The key to success is the desire and determination from the management group (which should include all partner companies) being passed on to all contributors to enable an understanding of each partner’s specific needs and difficulties.

This study confirms that, amongst the practitioners in any organisation, there are some very able teachers. It is also true that amongst academics, there are some very able practitioners and
we would like to argue for greater flexibility so that practitioners and academics could move more easily between these two roles.

If the role of practitioners in higher education were to expand, what would the academic contribution need to be? Readers will have recognised that input by academics in this model is essential, but the conventional roles of research, administration and lecturing change. Direct responsibility for lecturing is reduced whilst knowledge, experience, project management skills and contacts in these fields are used to guide the involvement of practitioner teachers.

We hope this article encourages employers and universities to explore further how to harness the skills of both practitioners and academics. Perhaps the model of practitioner involvement in teaching as exemplified in Table 2 could be explored by other groups of employers and educationalists?

References
BIS (2009a) Skills for Growth, Department for Business, Innovation and Skills, UK Government.

John Pitt was Principal Transport Planner for Surrey County Council; Anne Lee is the Senior Academic Development Adviser, and Robert Griffiths was the Programme Director of the MSc in Transport Planning and Practice, both at the University of Surrey.

Table 2 Practitioner involvement in teaching model

<table>
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<th>Role of academics when practitioners teach</th>
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<tr>
<td>• Programme development and leadership</td>
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<td>• Project management, and coordination</td>
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<td>• Ensuring appropriate pedagogical development</td>
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<td>• Experts in assessment</td>
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<td>• Quality Assurance</td>
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<td>• Research and research methods</td>
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<td>• Mentoring students</td>
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<th>Potential application of the 'practitioner as teacher' model</th>
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<tr>
<td>• Other vocational courses in colleges and universities</td>
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<td>• Development of higher education in the private sector</td>
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<td>• Skills training by employers</td>
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<td>• International markets</td>
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Table 2  Practitioner involvement in teaching model

University Challenge: Learning to Work with Employer Engagement

Barbara Workman, Middlesex University

A number of reports have emerged from government and business recently which have set the employer engagement agenda for the HE sector. It is not my intention in this article to discuss the individual reports (a list of key ones are to be found at the end), but to draw on some common themes and identify some issues for those who are tasked with making HE programmes employer and academia friendly. It will outline some issues raised for universities by the employer engagement and workforce development agenda and the consequent impact upon programmes and work-based learning (WBL) opportunities.

Key drivers
Working with employers is not new, and in this time of recession, effective collaboration between HE, business and government sectors is considered to be critical in achieving economic recovery and international competitiveness. Some HEIs are more effective at engagement than others and there are currently a variety of working models, practices and demonstrator projects (HERDA, 2009). The recent CBI report Stronger Together (2009a) makes it very clear that funding HE is not the prerogative of the government alone, but that businesses should be developing reciprocal partnerships with HE and contribute work placements and sponsorship to develop the workforce of the future, particularly in Science, Technology, Engineering and Maths (STEM). Higher Ambitions, from the Department for Business, Innovation and Skills (BIS, 2009), makes it clear that the government is expecting a cultural shift between the HE and business sectors to (amongst other things): widen access and opportunity; include more learning for and at work to contribute to economic recovery and growth; shorten degree courses from three to two years whilst retaining standards and enhance employability; and strengthen the research capacity of universities to contribute to the economy and community. Much of this is expected to happen through meaningful and productive partnerships between businesses and HE, which will involve not just funding but also programme development for both sectors.

Organisational and business development needs of the future have been identified as needing 'higher level' skills which