Employer-Academic Engagement- a Response to the Skills and Impact Agendas (0334)

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Since the Bologna Agreement (1999) a plethora of policy documents have emerged at national and European levels that impinge on the practice of Higher Education (HE), many demonstrating an unprecedented interest in the development of the skills of graduates at all levels, primarily in skills required for future employment (Jorgensen 2014). Observers and practitioners alike might well detect at least a correlation between the deterioration of the global economy and the exhortations to the HE sector of policy-makers to ensure that graduates acquire skills that will contribute competitive advantage to national and European-based commerce and industry. For example, Roberts in his SET for Success Report (2002) recommended that STEM (the science based disciplines) graduates more assiduously acquire the skills required by employers, Leitch (2006) sought a raising of all levels of skills, while Hodge (2010) reviewed the implementation of skills training in the UK, providing acknowledgement of progress but still requiring more attention to meeting the needs of employers.

Contemporaneously, however, HE institutions in the UK struggled to recruit students into some of the sciences; in particular enrolment in Physics degrees was declining, despite a growth in numbers of undergraduates and postgraduates overall. The reveilles came when the Physics department at a research intensive university (Reading) was forced to close because of low undergraduate recruitment, causing consternation across the discipline as other institutions verged on a similar state. The response in the South East of England was that Physics departments across the region (initially six, now nine and growing) sought and won funding from the Higher Education Finding Council for England (HEFCE) to support collective action in the form a network (SEPnet) charged with improving the attractiveness of the discipline at all levels through focussing on Outreach, Impact and Employability while maintaining / enhancing teaching through research.

Thus responding to two specific pressures (national/international policy and internal recruitment issues) skills training, and more specifically meeting the skills needs of employers, became one strategic focus of the network. In summary, the employer engagement strategy aims to:

Increase awareness of the links between universities and business;

Survey and assess current and future requirements of employers, including SMEs (Small and medium size enterprises);

Produce qualified, employable graduates at all levels with the skills and knowledge to meet the needs of industry and commerce.

In reviewing the literature on university-industry relations, Perkmann et al (2010) coined the term ‘academic engagement’ to denote knowledge-related collaboration between academic researchers and non-academic organisations, including collaborative research and consulting as well as exchange of advice and networking activities, formal and informal. Thus academic/employer engagement is a more appropriate term for the SEPnet context than what is normally described as ‘knowledge transfer’ in that the transfer conduit is two-way and in this case any commercial aspect is subservient to establishing a culture of mutual understanding and support through various means. The presentation will include elaborations on relevant SEPnet activities which include placements and internships of various kinds for undergraduate and postgraduate students, employer mentoring of students in addition to research co-supervision and collaborative projects, workshops and training provided by employers and/ or taking place in employers’ premises, site visits, specific problem-solving challenges for students to work on for the employers during

Summer/Winter Schools, and the establishment of an Advisory Panel of employers to guide our skills training. Amongst other things intended to be of mutual benefit are the sharing across the sectors of knowledge, expertise, creativity, skills and access to specialist kit.

As noted by Marcketti and Karpova (2014), while students can be better prepared for future careers by learning through industrial collaborations, they nevertheless can face challenges in the process, not the least confronting the differences in culture between the academy and the world of work and managing the time and energy demands of fulfilling both their academic and skills-learning commitments. Similarly, academic colleagues have been confronted with a need to both share their hard-won industrial networks and their doctoral researchers while learning further to work with those in cultures with different aims and objectives (in addition to working in collaboration across the sector with colleagues with whom in other respects they are in competition.) Meanwhile, employers too are enjoined to work with erstwhile competitors while encountering the somewhat arcane practices of academia in the hope of gaining future employees more suited to their needs.

The perspectives of these participants in the enterprise must be regularly monitored: as part of practice evaluation to aid appropriate further development; to contribute to reports to the immediate funders, that is HEFCE and the institutions' executives; to share with the wider communities that both support and benefit from HE activities – impact reports of variable kinds; and to inform other similar communities who may benefit their own practice by learning of our triumphs and tribulations. Further, when Professor Sir Robert Burgess invited SRHE members to celebrate the 50th anniversary of the Society he also encouraged us to share, collect and curate case study research on institutional responses to the current challenges pervading Higher Education so that we might learn from each other. We present this case study, which includes examples of the perspectives of all participants, as a contribution to the small but growing literature (see for example de Freitas et al 2014 and Lucia et al 2012) on models of industrial- academic collaboration.

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