

Employability and Entrepreneurship – Perceptions of PhD students in China and the UK (0034)

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The PhD degree attracts increasing attention from policy makers who view its holders as central to the success of a high skills “knowledge economy”. A recent report (Smith et al. 2010) states that “the skills of postgraduates, especially researchers, are critical for tackling major business challenges and driving innovation and growth”. All UK PhD programmes now include transferable skills development (Roberts 2002) and this is considered to have been very successful in improving the employability of researchers (Rugby Team 2009). Whereas once the thesis was considered the major product of the PhD programme, now the skilled researcher themselves is considered the primary outcome, i.e. “an individual trained to have a unique set of high level skills” (League of European Research Universities 2010). Even so, Smith et al. (2010) urge still further action, encouraging institutions “to be more pro-active in providing postgraduates with the opportunity to develop the core competencies they need to succeed in a competitive job market.” Within the research postgraduate population, policy makers often focus particular attention upon those working in STEM (science, technology, engineering and mathematics) disciplines, considered to be of strategic importance (HEFCE 2008) and to have a major role to play in strengthening the national economy (Roberts 2002 and DIUS 2008). The associated agenda of increasing entrepreneurship amongst researchers has been embraced by policy makers (DIUS 2008) and by research funders in the UK (RCUK 2008).

This study uses identity as a lens through which to examine both employability and entrepreneurship as they are perceived by PhD researchers in the STEM disciplines. Definitions of employability in the literature vary and are more contested than policy makers acknowledge, but links are often made to identity. For example, one study has found that first degree graduates manage their employability in ways that relate to their sense of personal and occupational identity (Brown et al. 2003). Fugate (2004) suggests that employability includes “career identity” which influences one’s adaptations and aspirations. However, much of the literature dealing with the employability of students tends to focus on employers’ views (e.g. Souter 2005 and CBI 2008) rather than those of the students themselves.

Entrepreneurship within the academic context has attracted considerable research attention. In a study focussing on PhD students (Hakala 2009), the concept of identity emerges again in the guise of academic identity. Drawing on the work of Taylor (1989), she links academic identity with a sense of what is “good and valuable”. This proves to be a highly relevant notion when considering the ways in which entrepreneurship is perceived by research students. In a Spanish study, Morales et al (2009) found that scientific

knowledge had been the main driver for established academic staff to get involved in entrepreneurial activity. Although some were categorised as reluctant entrepreneurs “forced” into an entrepreneurial pathway as the only way to continue their scientific work, this group had found congruence between an academic and entrepreneurial identity. However, the literature is clear that this is not a universal position. Slaughter et al (2002) found that commercialised research goals could be considered “orthogonal” to those of academics (i.e. neither aligned nor in opposition). The notion of academic capitalism (Slaughter and Leslie 1997), with its increasing attention upon market potential as research impetus, is associated with a loss of academic freedom by many (Altbach 2001) and even a changing of academic identity (Henkel 2005). Jazvac-Martek (2009) looks at role identity as it applies to doctoral students wishing to become academics. Their “oscillating” identity (between student and staff), heavily influenced by their senior colleagues, motivates their behaviours and attitudes to external influences. This underlines how policy makers’ interventions, aimed at increasing entrepreneurship in universities, cannot achieve behavioural change without first influencing these nascent role identities.

This study aims to help to close the gap between policy makers’ assumptions and PhD students’ views. It is important as the subjects represent in part the future of the academic profession. It presents preliminary results from a mixed methods investigation into the perceptions of employability and entrepreneurship of STEM-discipline PhD students split equally between the UK and China. Quantitative analysis (of a sample of 280) offers an unprecedented overview of student thinking on both topics. These findings are then further illustrated by the results of in-depth interviews conducted with a subset of both British and Chinese students.

Their perceived identities as students, as academics, as future entrepreneurs (or not), as employable (or otherwise) were found to be a useful lens through which to interpret the findings. Slicing the data in a number of ways allowed interesting differences to emerge – not just between the British and Chinese students but also between those aiming for academic careers and others.

For educators there were interesting findings. For example, when asked which elements of their doctoral experience had contributed most to the development of their own employability, Chinese students were more likely to list things they had done alongside the PhD research itself, such as undertaking placements or working on other projects. British students, in contrast, cited elements of the PhD itself, such as developing deep problem solving skills. There were also many differences in the relative importance of certain elements of employability between groups which arguably related to both national culture and style of PhD education.

Regarding entrepreneurship, there was a great diversity of understandings both within and between the groups. Views about how entrepreneurship fits with academic practice and how likely students felt they were to engage in future entrepreneurial behaviour were particularly interesting. The Chinese students were significantly more positive about entrepreneurship than the

British, but both groups expressed concerns about the conflict between the roles of researcher and entrepreneur.

It is intended that the insights gained from the study can usefully inform future policy development and may be especially valuable at this time of diminishing public funding. For educators and supporters of PhD students, the results may also generate ideas of how to nurture their development more effectively.

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