The professional development of postgraduates during their university studies is a critical consideration for ensuring they develop appropriate attributes, such as leadership and entrepreneurial skills, to drive both research and economic development.
POSTGRADUATE PROFESSIONAL DEVELOPMENT

Joint Statement from the Imperial College London Roundtable Debate held on 16 October 2015

This joint statement has been written following the inaugural roundtable debate of postgraduate professional development held on 16 October 2015. The roundtable debate brought together representatives from industry, learned societies, the Higher Education Funding Council for England (HEFCE), the Higher Education Academy (HEA), Vitae, the UK Council for Graduate Education (UKCGE), and higher education institutions. The full list of contributors is documented at the end. A background paper [1] was sent to participants to explore current issues in UK postgraduate provision.

EXECUTIVE SUMMARY

The roundtable was a unique opportunity to bring together a range of organisations with a strong interest in improving and growing professional development for postgraduate students. There was strong debate between industry, higher education (HE) institutions, professional bodies and HE organisations.

The roundtable identified a number of key recommendations:

• Team work, adaptability and resilience in research are developed rapidly in industry and companies but not so easily in universities. Universities should look at approaches to student research to build these attributes.

• Universities should consider a range of approaches to leadership development throughout the postgraduate student experience and look to enhance student engagement and leadership opportunities.

• Further encouragement for students to develop entrepreneurial and/or innovation attributes is required. Universities may learn from international approaches to this.

• The strengthening of links with alumni and industry to engage with and facilitate both experiential learning opportunities and to inform the development of professional development programmes would ensure relevance.

• Industry and businesses should play a stronger role in postgraduate development, as access to industrial and company-based challenges is exciting and engaging for students.

• Professional bodies and learned societies should work more closely with universities to strengthen their support for professional development for postgraduates and to help postgraduates engage.

• Graduate schools, and equivalents, should encourage greater adoption of reflective practice for students and academics, as the approach is used widely within industry and businesses to improve self-awareness.

• Graduate schools, and equivalents, should work more closely with alumni, industry, businesses, relevant organisations and professional bodies in the development of professional skills in order to raise the profile of professional skills and to encourage seamless progression during the postgraduate domain.
CRITICAL COMPETENCIES

Universities have been developing ‘research skills’ for postgraduate research students over the past decade led by Research Councils UK and Vitae. However, widening this responsibility to continual ‘professional development’ which includes Master’s programmes and recognises that journeys through the postgraduate domain are extending to include multiple paths, is essential. There are now many 1+3 PG degree options, and students are entering postgraduate studies either after periods of employment in industry and business, or during. Hence it is an appropriate time to consider whether universities are addressing the critical professional competencies that should be developed during postgraduate studies and whether the routine practice of these professional skills should be embedded. There are several reports that list essential skills that companies desire; the list used for this debate was based on the Global Graduates into Global Leaders [2] report. The skills include: a high level of ability for collaborative working; communication; drive and resilience; being able to challenge thinking; learning new skills and behaviours; self-awareness; negotiating and influencing; being able to form professional global networks; respect; and multicultural learning. These competencies are key for postgraduates to develop, whether their planned destination is as a researcher in academia, a worker in industry and business, or another career.

A significant issue identified was the difference between how industry addresses research compared to academia. Industry often invests in teams, sometimes multiple teams, for a short intense time to address a high-risk research challenge which may or may not succeed. Discussion of failure is not taboo and workers readily have exposure to both success and/or closure of research projects. By comparison, research students in HEIs, and their supervisors, are heavily invested in a three to four year research project which has far more impact on the individual should it not deliver the desired outcome(s). Hence the development of the competencies listed above are readily and rapidly happening in industry and businesses, but it is more challenging for HEIs to develop students in similar team work and resilience. There are many competing demands on a research student’s time: research, publishing, presenting, skills development, networking and work experience. This is coupled with the fact that the wellbeing of research students [3] is of growing concern, both in the UK and abroad. The current approach to PhD study is placing high demand and commitment on students – is it an appropriate time to examine these approaches?

GLOBAL LEADERS

Building on the competencies listed above, UK universities have a growing desire to equip graduates with leadership skills by providing opportunities for experiential leadership development training. This would secure a pipeline of global leaders for and from the UK. Any provision needs to build successfully from leadership development gained in the secondary school system; externally, for example, in volunteering, and at undergraduate degree level.
Furthermore, the provision needs to include identifiable and continual progression from Master’s level into and through the research student stages.

Currently, graduate schools and their equivalents within the UK do deliver a variety of leadership skills development courses. Whilst some have sufficient resource to deliver practice-based leadership courses, such as Vitae’s ‘Leadership in Action’, not all are able to offer such courses for all their postgraduates and therefore, academic departments and supervisors should consider other ways in which graduate students can develop leadership skills within departments.

Introducing leadership skills at Master’s level is an important addition to the Master’s experience, and is essential for those who go from the Master’s level to employment. Employers expect that postgraduates will have a greater maturity and be able to demonstrate leadership attributes. It was recognised that experiential leadership training at Master’s level would have a positive and significant impact both for industry/businesses and academia.

Industry and businesses have adopted the concept of the ‘emergent leader’. They do not develop all their staff in leadership, but look for those individuals showing natural talent and who naturally adopt a leadership position in a team. They identify these individuals and develop them to enhance this natural ability. This could be explored in universities – can we and/or should we identify postgraduate students who have a natural leadership quality for development opportunities?

**DEVELOPING AN INNOVATION CULTURE AND ENTREPRENEURIAL MINDSET**

The Dowling Review [4] identified that “to remain internationally competitive, the UK needs to both maintain its capacity to innovate and ensure that this innovation is translated to economic gain”. It is important in this context to ask how UK postgraduates perform compared to our international counterparts and if there are examples of best practice that could be adopted. The NCUB Green Paper [5] highlights that competition is intensifying for UK graduates, as companies are extending their searches for talent and recruitment worldwide.

Furthermore, the differing views on entrepreneurship between Chinese and British doctoral students were identified through a study carried out by Walsh et al (2015) [6] which showed that “Chinese students were more likely to agree that research should contribute to economic success and to view entrepreneurship as a natural means of doing so, as part of their responsibility to improve society and the future. By contrast, British students’ views were less positive, with one participant associating entrepreneurship with commerce and a ‘dirty word’.”

“It is critical that postgraduates are able to articulate the skills they have learned to employers.” – HEA

“Industry and universities must explore ways in which to strengthen links in order to provide opportunity for students to experience work-based learning.” – Rolls-Royce
If we look towards universities renowned for their innovation culture; for example Stanford and MIT [7], we ask – can UK institutions do more to encourage this mindset to develop? Can they encourage risk and innovation, and an entrepreneurial hunger?

**Collaborating with industry and business**

Many universities already have very strong links with industry. However, further enhancing links with industry could bring about increased opportunity for postgraduates in order to gain the experience needed to develop leadership and entrepreneurial attributes. Working within industry, and experiencing different environments, cultures and teams, is an invaluable way in which to develop self-awareness and embed key attributes. The higher education sector already recognises the benefits of working more closely with industry as part of the research student experience, for example, in professional doctorates. However, for many students, placements in industry are proving challenging due to the pressure to complete them within funders’ deadlines.

It is recommended that graduate schools consider ways in which to strengthen links with alumni and industry in order to facilitate experiential learning opportunities, and to inform the expansion of professional development programmes. There is a case for industry playing a stronger role in helping to enable this, as access to industrial challenges is exciting and engaging for students.

**ENGAGING WITH PROFESSIONAL SKILLS DEVELOPMENT**

There is a growing discussion on how best to increase engagement with the professional skills agenda from all within higher education, and how to evaluate the impact of university-based professional skills training. There is some noticeable reaction within academia to the concept of 'soft skills', however industry has embraced this agenda and has invested widely in developing self-awareness in staff. It is important for HEI academic departments, and in particular supervisors, to engage in the professional development of their students, helping them to understand the skills they need and those that they have developed. Is it time to encourage adoption of reflective practice – an approach used widely within industry and business?

**Working with professional bodies and learned societies**

To improve engagement, there is a strong case for enhanced support for professional development programmes from the professional bodies and learned societies. Academics and students highly regard their discipline-specific professional bodies. Their professional body membership forms part of their academic identity. With support from the professional bodies, professional development programmes in universities could have enhanced credibility. This may be taken further, and the case for accreditation of professional development programmes could be considered.

It is recommended that higher education institutions, through their graduate schools and equivalents, should work more closely with students, alumni, industry, businesses, relevant organisations, and professional bodies in the development of professional skills to raise the its profile and to encourage seamless progression during the postgraduate domain.

“It is important for academic staff to engage in meaningful discussions about professional skills development with postgraduate students.” – Royal Academy of Engineering
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References (Note: for further references, please see background paper 1)

[1] 2015, Janet De Wilde, Background Synopsis for Roundtable Discussion on Postgraduate Professional Development, email: j.de-wilde@imperial.ac.uk

http://www.ncub.co.uk/reports/global-graduates-into-global-leaders.html

[3] 2010, Elaine Walsh, Factors Affecting the Well-being of PhD Students at Imperial, PowerPoint presentation, Imperial College London


