

The importance of understanding the expectations and attitudes of the student body, university staff and business and industry in improving the STEM postgraduate taught student experience



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Abstract

The aims of this paper are fourfold. Firstly, it will set the scene by briefly outlining the issues facing the Postgraduate Taught (qualifications by coursework) sector in the UK. Secondly, it will report the key findings of an HEA Individual Teaching Grant funded project undertaken at a Post 1992 University across STEM subjects which explored some of the nationally neglected issues facing the sector. Thirdly, it will report how this valuable research informed and provided the foundation of a successful II institutional bid to HEFCE seeking to understand the barriers, drivers, motivations and outcomes facing PGT students as well as UK employers' needs. Fourthly, it will highlight funding opportunities by the HEA and HEFCE for projects that encourage better targeted and sustainable support for students, improved course design to provide students with the skills business and industry require, and institutional and national strategies that are fit purpose in growing and sustaining the PGT market in the UK.

Keywords

postgraduate, taught, student experience, masters by coursework, learning, HEFCE, HEA

1. Introduction

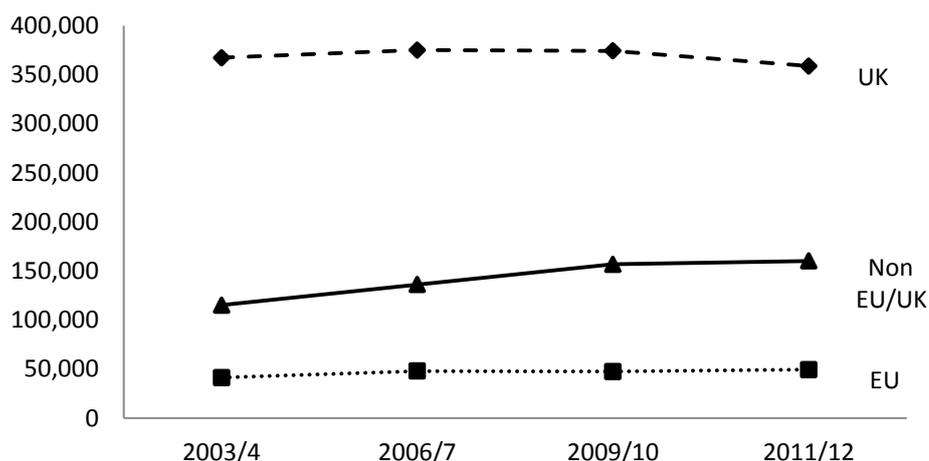
Expansion of PGT study in the UK

There has been a dramatic expansion in the *taught* postgraduate (PGT) student body in the UK in the past 15 years (see figure 1). Broadly speaking, postgraduate qualifications at present can be classified into two groups: those that are substantially taught such as Masters by Coursework; and those with a significant research component such as Doctorates by Research (Smith et al., 2010).

Evidence suggests that Postgraduate study by the individual is increasingly undertaken for career advancement rather than self-fulfillment (Barber et. al., 2004, Stuart et. al., 2008; Park and Kulej, 2009). It is also suggested that there are financial benefits for the individual in undertaking Postgraduate level study. A report in 2010 for the Sutton Trust by the Centre for Economic Performance, using Higher Education Statistic Agency's destination data, illustrated that

someone who held a postgraduate qualification generally earned more as a starting salary and over a life time than an undergraduate (Machin and Murphy 2010). Another driver may be a change in the perceived value of the UG degree within the employment market. Wolf (2002) suggests that the postgraduate population may have increased in recent years because “as the bachelor’s degree becomes ubiquitous, its relative advantage in the labour market is diminishing” (cited by Wakeling 2005, p. 506). It is also argued that expansion has occurred as the UK Government is committed to expanding PGT study to improve the UK’s industrial competitive global position (DTI, 1988) as well as the UK’s position in the global market of HE (DfES, 2003).

Figure 1 Growth in postgraduate numbers in the UK



Source: HESA (2008b; 2012b; 2013a, b)

Current status of PGT participation

There are two major issues facing PGT study in the UK. First, although the postgraduate taught (PGT) market has seen a dramatic expansion in the UK in the past 20 years, there has been a recent decline in growth in the overall PGT student numbers, most noticeably amongst UK and Overseas domiciled students (see figure 2) (HESA 2013a,b). The part-time study mode (traditionally dominated by UK domiciled students) and STEM disciplines have been greatly affected (Millward & Creasey, 2013; Morgan 2013 a,b,c). Although intuitive reasons can be made to explain the decrease, there is limited evidence to provide accurate explanations enabling the development of practical strategies to reverse this pattern.

Figure 2 Domiciled status participation of fulltime students in UK HEIs in 2011/12

	2010/11	2011/12	% change
UK	375,030	358,800	-4.5%
EU	49,795	49,465	-0.7%
Non EU	163,890	160,245	-2.3%
Total	588,715	568,510	

Source: HESA (2012)

Literature available

Extensive research has been undertaken in the field of the student experience and learning and teaching at undergraduate level (e.g. Tinto, 1988; Woodrow, 1998; Thomas, 2002; Hatt et al., 2005; Morgan, 2011). However, there is a limited, albeit a growing body of research, in the area of PGT study (Wakeling, 2005; Green, 2005; HEFCE 2006; Stuart et.al, 2008). The Higher

Education Commission commented in 2012 that “*Postgraduate education is a forgotten part of the sector*” (Higher Education Commission, 2012:17).

The Higher Education Academy (HEA) has been at the forefront in investigating the Postgraduate (PG) student experience through their annual *end of course* Postgraduate Taught and Research Experience Surveys. They have also funded a number of notable research projects. In 2008, *Widening participation to postgraduate study: decisions, deterrents and creating success*, led by Professor Mary Stuart, was published (Stuart et al., 2008). The research was quantitative and qualitative in nature and explored the intentions to study at PG level of final year undergraduate students at two Post-1992 universities across all disciplines. In the same year, Tobbell and colleagues published their report on *Exploring practice and participation in transition to postgraduate social science study* (Tobbell et al., 2008). Their research was qualitative, undertaken across five institutions and involved 39 student and staff participants. Wakeling, a key commentator in the postgraduate student experience field, has undertaken wide-ranging research exploring the social barriers of engaging and succeeding in postgraduate study as well as research into widening participation at postgraduate research level. His latest research report co-authored with Hampden-Thompson and funded by the HEA is entitled *Transitions to higher degrees across the UK* (Wakeling & Hampden-Thompson, 2013). It is the first comprehensive research undertaken examining PG growth within the UK. Other valuable research includes that of Steve Machin who has been exploring the financial issues and implications of PG level study for all stakeholders (Machin & Murphy, 2010).

However, there is limited published research into understanding PGT students’ prior academic experience at postgraduate level, their expectations in general and how these factors might affect their expectations of and attitudes to studying at this level. Literature at undergraduate level strongly suggests that previous learning, teaching, assessment and feedback experiences at undergraduate level can have an impact on students’ ability to engage and succeed in their studies, especially if they are from non-traditional or widening participation backgrounds (Bamber & Tett, 2000; Richardson, 2003) but the extent to which this is the case at postgraduate level is unknown.

This type of knowledge can assist an institution effectively support and manage the experience of their students across academic and non-academic spheres in order to help them progress and succeed in their studies. It can also be a powerful tool in the sustainability planning process at PGT level. It was due to the paucity of literature in this area that the Faculty of Science, Engineering and Computing at a London Post 1992-institution undertook their own research looking at prior learning experiences and expectations of all their new MSc science, engineering and computing PGT students to provide valuable data and insights into this nationally and internationally area neglected.

2. Key findings from the Post 1992 Research

Aims and objectives of the project

The aims of the research were twofold. Firstly, it wanted to explore the prior feedback experiences of the new PGT cohort to determine whether it may contribute in shaping their attitudes towards feedback at PGT level study. Secondly, it wanted to investigate the drivers for undertaking PGT level study and the expectations of new students studying and accessing support at postgraduate level across academic and non-academic (e.g. financial and health advice) spheres. The objectives were: to identify any particular issues that appeared to affect successful engagement; to determine what interventions or activities could be put in place to manage student expectations and improve the postgraduate taught student experience.

Confines of the research

The research, funded by an HEA Individual Teaching Grant, was conducted over a one-year period at the Post-1992 institution. Across the eight schools, 233 questionnaires were completed. This accounted for approximately 90% of those who attended the main Welcome and Orientation programme in September 2012 and for 54% of the September cohort intake (late arrivals were not included in the research). The full report is available at: http://www.improvingthestudentexperience.com/library/PG_documents/Individual_Project_Report_Morgan_2013_Final_August_2013.pdf

Entry route in to PGT study

Of the respondents who classified themselves as first generation (first in the family to go to university), the most popular entry route was *straight from work*. For second generation respondents it was *straight from University*.

Reasons for undertaking a PGT qualification and for choosing a university at which to study a PGT qualification

Improving knowledge of the subject was the most cited reason for undertaking PGT level study. The second most cited reason was providing *more career options* followed in joint third with *improving chances of getting a graduate job and required for chosen career*. *Course content* followed by *cost of fees* then *teaching reputation* were the three main most cited reasons provided by the respondents as important when choosing a university at which to undertake PGT level study. The *university's research reputation* was not a significant factor.

Fee levels and funding

Fee levels were *very important* or *important* for over half the sample. They were slightly more important for first than second generation respondents in this study. Fee levels being rated as *not important* or *not important at all* were higher amongst second generation respondents. Of the sample, the primary method of funding PGT level study for two fifths was parental assistance. Of these, just over half were coming straight from university and one quarter from work. There were generational and domiciled differences.

Quality of study

A significant number of the sample expected a higher level of service, value for money and an individualised study experience at PGT level than at undergraduate. Expectation levels increased with age and first generation respondents tended to have higher expectations in academic and non-academic spheres, than those who were second generation.

Anxiety levels

Of the sample, just over seventy per cent were *anxious* or *very anxious* about their PGT studies. Anxiety levels were highest amongst those coming straight from work and in females within the sample. There were no significant generational differences in terms of anxiety levels. *Coping with the standard of work* was the primary anxiety for respondents followed by *managing money* and the *demands of travelling to university*. Anxiety levels for EU and Non-EU respondents in non-academic areas such as *managing money* and *making friends* were noticeably higher than for UK respondents.

Value of a PGT qualification

Of all the respondents, over four fifths stated that they believed employers did value a PGT level qualification more than an undergraduate one and just over ninety per cent believed it would enhance and develop the key skills that employers valued.

At the time the Post 1992 University report was being completed, HEFCE launched the Postgraduate Support Scheme in response to the recent changes in higher education as a result of the White Paper *Students at the Heart of the System* (Department of Business, Innovation and Skills, 2011) and falling PGT numbers. English higher education institutions were invited to submit funding proposals for pilot projects to test options for finance and activity aimed at stimulating progression into taught postgraduate education, particularly among currently under-represented groups and in areas that supported the Government's ambitions for economic growth.

3. Further exploration through a major HEFCE funded project

The Post 1992 University submitted a bid entitled *Investigating the expectations and attitudes towards postgraduate taught (PGT) STEM study, and post study outcomes from the perspective of students, universities and employers to support and sustain PGT growth in the UK – A collaborative project*. The bid, which comprised of 11 universities (9 English, 1 Welsh and 1 Scottish) geographically dispersed universities across the UK, was successful. The working title for the Project is the Postgraduate Experience Project (PEP). The project started in January 2014 and is due to report the majority of its findings at a National Dialogical Conference at Kingston University in July 2015. A website will be available with project updates from May 2014 onwards.

The 20 projects funded by HEFCE in this tranche of funding will support more than 2,800 students and involve a range of support activities including financial and pastoral support, mentoring and networking, curricula change, funded studentships, work placements and a variety of bursary and loan schemes. Most of the 20 projects will be working with a range of partners including other higher education institutions and employers. More information can be found at: <http://www.hefce.ac.uk/news/newsarchive/2013/news85254.html>

The aims and objectives of PEP are to:

- Identify the expectations and attitudes of new PGT students and ascertain motivations and drivers for undertaking PGT study;
- Identify employers perception of value, and expectations of the skills a PGT graduate can/should provide business and industry;
- Identify the outcome expectations of obtaining a PGT qualification for the student and employer;
- Identify the financial issues relating to participation and successful progression in PGT study;
- Explore which variables impact on attitudes, expectations the retention of PGT students (e.g. part-time, full-time, domiciled and generational status, age, gender, social class, ethnicity, discipline and route into study such as from work or University);
- Track the retention of the full-time cohort, and the PT and FT scholarship students to identify any barriers to achievement (e.g. level of fees/accrued debt, not coping with the workload or understanding the material);
- Offer a range of fee scholarships to determine if access to different levels of financial support impacts on participation. These students will be tracked 6 months after graduation to identify destinations, outcomes and benefits of their PGT course (Note: this falls outside of the HEFCE project time bracket but it is requested that this also be considered and funded as part of the project as it will provide an important measurement in the expected outcomes of stakeholders).

The key outcomes/outputs are to:

- Identify any similarities and differences between the institutions and student body, and determine what conclusions can be drawn from the research;
- Identify any particular issues that appear to impact on stimulating progression onto successful progression and engagement of PGT students and develop strategies to reduce them;
- Provide immediate support and advice to new PGT students on an institutional level regarding their concerns arising out of the findings;
- Identify employers' needs, and determine how to incorporate them into curriculum design and development;
- Use the findings at a local level within each institution in developing and implementing local interventions or activities to manage student expectations and experiences;
- Explore and identify how to effectively widen the PGT market in the UK;
- Create a repository of sustainable and affordable good practice to be held on the project website for use by the sector;
- Provide a large cross-institution dataset enabling each university to generate further research out of the dataset thus enriching the knowledge for the sector in general (e.g. part-time, mature, differences in attitudes between students coming straight from work and university, generational, domiciled and gender differences, discipline differences);
- Contribute to the national funding model debate with the research findings, and determine the importance of different levels of fee support and their sustainability in generating PGT participation.

4. Funding opportunities

There are number of funding opportunities for universities to spearhead projects that encourage better targeted and sustainable support for students, improved course design to provide students with the skills business and industry require, and institutional and national strategies that are fit purpose in growing and sustaining the PGT market in the UK. The links below will take colleagues to the relevant page.

<http://www.heacademy.ac.uk/funding>

<http://www.hefce.ac.uk/>

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