

Facilitating Students' (Doctoral) Transition to the Workplace: A Critical Review

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Abstract

The recent ongoing changes to the UK higher education sector have put immense pressure on both academics and students. Where academics are working hard to enhance the quality of the educational product, students, on the other hand, are struggling with the rising tuition fees and the challenging labour market. As a result securing a good job after graduation depends on how a student has managed to excel in gaining experience beyond the classroom and developing key skills through their time at university. This becomes particularly challenging in the current era, where globalisation brings further challenges and opportunities to the university sector, to seize the market advantages for those establishments able to respond in a timely and flexible way with appropriate innovation and internationalisation strategies. Doctoral researchers are an integral part of the student community. Hence it is important that universities assure the successful transition of these doctoral students to their workplace and externally. This study, therefore, attempts to provide a critical review on facilitating the doctoral students' transition to the workplace through doctoral research positions and the role played by their PhD supervisors. The study methodology uses existing literature and interviews with students and faculty members to draw out experiences and perspectives. The results of this research can be applicable to any higher education institution in the UK and to other countries where the academic system is similar.

Keywords: Employability, Students Experience, Innovation, Internationalisation, UK Higher Education, Doctoral students.

Introduction

In a highly challenging and uncertain environment, the UK higher education system is going through very difficult times. Tuition fees paid for directly by students across UK universities have risen significantly over the last few years, which puts intense pressure on students to excel in their education and to secure a good job after graduation. Within a university setting for an academic career, or in preparation for opportunities in the wider public and private sector workforce, students are seeking additional guidance that will help to prepare them for their future. Hence, universities must make sure that students get their money's worth and offer good career prospects advice after their degree. Doctoral researchers are an integral part of the student community and they play an important role in carrying out teaching and research activities in UK universities. However, their active roles in teaching vary from university to university. Many fully funded Doctoral Researchers look to perform teaching-related duties as part of their funding contract, whereas others choose to get involved thinking about their future job prospects. It is well known that teaching experience is essential if one wants to build a career in academia. However, many PhD graduates also transition to jobs into the private corporate sector.

Research shows that the biggest growth in vacancies is expected in public sector organisations and high street & online retailers, which together intend to recruit over 1,200 extra graduates in 2017 (High Flyers Report, 2017). Some other key points from High Flyers reports are:

- In the past year, graduate recruiters made more use of social media, university recruitment presentations, skills training events and campus brand managers and did less advertising in career sector guides (P. 6).
- 13,000 graduate positions will be available in accounting & professional services firms; public sector employers; engineering & private sector; and investment banks (P. 12)
- Over a third of recruiters involved in the research stated that graduates who have had no previous work experience at all are unlikely to be successful in securing a job offer for these organisations' graduate programmes (p. 24).

Whilst some traditionalists uphold the view that the universities' focus should be on developing student researchers knowledge of the discipline; it is increasingly acknowledged that universities have a responsibility to give opportunities to students to equip themselves with all necessary skill sets to make them employable in both the public and private teaching and non-teaching organisations.

This paper, therefore, sets out to explore the role that a PhD supervisor can play in responding to the broadening set of learning requirements that will support a successful transition to employment; and the challenge facing the universities in equipping them.

From our experiences as academics, we believe it may be useful to explicitly explore behaviour, “the way in which one acts or conducts oneself, especially towards others” (date req on Oxford Dictionary), in the context of employability and its own definition, which is applicable to different types of students from different disciplines. It broadens the CBI (2011) reference to a ‘can-do’ approach and Yorke’s (2010) emphasis on graduate attributes.

There is also a need to focus on softer skills and behaviours in considering successful transition as research suggests: this concept that behaviour is even more important in today's organisations is outlined in three recent reports from the CIPD. Real-life leaders: closing the knowing-doing gap (Zheloukhova, 2013); Managing for Sustainable Employee Engagement: Developing a Behavioural Framework (Lewis et al, 2012) and Using the Head and Heart at Work: A Business Case for Soft Skills (McGurk, 2010) all emphasise the need for managers to recognise “effective behaviours”. McGurk (2010) argues that it is the role of business schools to provide opportunities for students not only to be book-smart, but also to develop these behaviours for themselves. Department of Business Innovation & Skills states that:

*‘Continued strong demand for graduates will rest on whether they are actually perceived as high quality in intellectual terms, but even more importantly whether they have the **communication and people skills plus positive work ethics and commercial attitudes**, which were the ‘must have’ behaviours for employers’ (Pollard et al, 2015:13).*

Supporting a focus on behaviours, Hinchcliffe and Jolly, (2011:580) identified four types of experience employers want graduates to demonstrate.

- 1. Values** – personal ethical values and social awareness.
- 2. Intellect** – covering capabilities such as the ability to think critically, analyse and communicate information, and challenge and bring new ideas.
- 3. Performance** – the application of skills and intellect in the workplace.
- 4. Engagement** – the willingness to meet personal, employment and social challenges head-on.

We would argue that behaviours are implicitly linked to each of these four areas outlined.

Universities have career services that focus on improving the job prospects of the students which includes careers education and understanding which options best suit them; helping students better understand themselves through self-reflection; learning about their personal drivers and motivation; and practical job application skills . Job competencies are learned through experience, and have been defined as, ‘...one of the sets of behaviours that the person must display in order to perform the tasks and functions of a job with competence. Each competency is a discrete dimension of behaviour as Woodruffe (2007:82) states that *‘The word competency has become an acceptable label for what assessment & development centre measures’*.

According to HEFCE, more than 130 universities have signed up to participate in the Teaching Excellence Framework (TEF). One of the assessment criteria is student experience and employability. As a result, all academic institutions in the UK are concerned about their students’ experience and employability. It is widely known in academic spheres that qualifications help people to progress but not in isolation (Blackmore and Kandiko, 2012). Hence academic institutions are keen on finding innovative ways to improve the employability of their students by improving their transferable skills (Bloxham and Boyd, 2011). Research studies have shown that innovative teaching methods combined with external engagement and internationalisation of the curriculum leads to a smooth transition for students towards a successful career path (Li-Hua, 2011; Leask, 2008).

Madeleine Atkins, CEO of HEFCE said that if students seeking employment can display innate capacities for work, communication and leadership skills, analytical thinking and problem-solving. They may be able to gain employment in an environment that will then provide the training they need to become capable in relevant jobs (Brown and Race, 2013; Repko, 2011). All these skills can be developed by proper planning and engaging students in experiences in the early stages of their university career. This might be enough to worry anyone preparing to cope with the overwhelming first weeks at university, but it needn’t be the case. With a little application in the first year, students can confront and plan for a career without ‘cramping their style’ (Hunt et al., 2013; Land, 2013). Waters (2009) reported that the employability of young graduates is increasingly dependent upon their ability to maintain ‘positional advantage’ in a labour market. As a result a number of students pursue postgraduate qualifications and many attempt this through the acquisition of an international degree from an overseas institution. The UK, being one of the most popular destinations for overseas students attracts several thousand

students every year. According to the UK council for international student affairs (UKCISA) in 2015-2016 around 438,010 non-UK students entered into UK higher education institutions. Around half of these non-UK students (199, 730) were admitted for the higher degrees (postgraduate) (HESA, 2015-2016). Surprisingly around 11,000 students each from the UK and non-UK obtained higher degrees in research (Doctoral Degree). This shows that research degrees are equally popular among students regardless whether they are domestic or overseas students.

It is evident from the discussions above that it is important for universities to work hard, to develop both hard and soft skills amongst their students. This will help them to develop once they embark on their careers. This study focuses specifically on the career development of postgraduate research students. There have been some studies that focused on addressing the support and learning of the postgraduate research students (Leonard et al. 2006; Grant, Hackney, and Edgar, 2014; Ali, Watson, and Dhingra, 2016). For example, Grant, Hackney and Edgar (2014) attempted to explore the role that postgraduate supervisors play in successful doctoral thesis completion through advising, mentoring, and monitoring. The next section describes the methodology adopted in this study which is followed by findings and discussions.

Methodology

The research methodology adopts a combination of synthesis of literature and face to face interviews with students and faculty members. A total number of 28 interviews were conducted with staff and PhD students. This included interviewing 18 PhD students and 10 staff who were involved in the supervision.

The research study was conducted with students and staff from 3 UK universities. The context for this work is a Business School in a university. The postgraduate research environment is facilitated by the University's Doctoral College, a collective of research degree students, their supervisors, director of postgraduate studies and specialist research degree administrators. All postgraduate research students are members of the Doctoral College.

In the Business School research is taking the centre stage and various research clusters have developed in recent years (Friga, Bettis & Sullivan, 2003). The Doctoral College Centre within the Business School is focused around different research centres doing research work on contemporary business problems.

The study relies on both primary and secondary data. In order to understand how successful transition of PhD students to the workplace can be facilitated, it was considered important to investigate the role of supervisors. Primary and secondary research was carried out to find out the skills and knowledge necessary to become a good PhD supervisor. The interviews were conducted with PhD supervisors and PhD students within the Business School where most of the data was collected. The secondary research involved review of academic literature and the Higher Education (HE) and University Policy documents.

For the purposes of the study, the PhD supervisor was expected to have the adequate subject knowledge. They were required to understand the rules and regulations of a PhD programme, supervision process, academic practices and also have the interpersonal skills to interact with the students. Research is now seen as an important strategic activity epitomised in the university's Strategic Plan.

Findings and Discussion

Skills and Knowledge Necessary to be a Good PhD Supervisor

- **Understanding of a PhD Programme's Rules and Regulations**

Our study also found that the PhD supervisor's training tends to focus on institutional requirements and the formal aspect of doctoral supervision (Whitelock et al., 2008). This has an impact on PhD students' progress in the PhD program. Institutional requirements include bureaucratic documentation and red tape which undermines function, social and project management skills. The complexity of the Research development requirements take their toll on the quality of PhD supervision (Gurr, 2001). However, for the success of any PhD programme, a supervisor should have a thorough understanding of the institution's rules and regulations in context with the specific PhD Programme.

- **PhD Supervision Process and Structure**

The critical issue in PhD supervision is how the supervisor and student's research interest match with each other and the way they handle the research. Franke and Arvidsson (2011) introduced a novel concept of different PhD supervision experiences and they found out that there are two broad supervision structures: research practice-oriented and research relation oriented supervision. The main difference between these two approaches is whether supervisor and student share a common research goal, objective and practice or not. If the research goal,

objective and practice don't match then it's difficult for the student to complete the PhD programme in the given time. The need here is to match the supervisor's research goal with the student's research goal and only then can both work in the same direction (Appel and Bergenheim 2005; Lönn Svensson 2007). If there are differences between the research approaches of supervisor and student then it becomes difficult to successfully complete the research in the given time frame.

- **Understating of Academic Practices**

The difference between supervisor and student can emerge not only due to the differences between research approach and goal, but due to some other factors as well. Mitchell and Carroll (2007) discussed unacceptable research practices and compromised standards which are unacceptable within the research community, awarding body and wider research context. Then the situations arise where both supervisor and students find themselves in a different type of relationship due to the unacceptable research practices and academic misconduct. New PhD supervisors are poorly trained in dealing with academic misconduct due to lack of engagement with regulatory bodies, lack of cross-cultural understanding (in situations where the PhD supervisor and student are from different cultural backgrounds) and not clearly understanding the meaning of academic theft.

- **Personal Experience as PhD Student**

Lee (2008) states that a supervisor can make or break a PhD student's research journey. Hence a supervisor plays a vital role in PhD studies. Lee (2008) further adds that a PhD supervisor's supervision skills are influenced by two key things: firstly, their concept of research supervision, and secondly their own experience as a doctoral student.

Pearson and Brew (2002) worked on skills and knowledge required by PhD supervisors and later Lee (2007) also worked on the same issue and developed a framework. Table 1 shows the framework adopted and developed from Pearson and Brew (2002) and from Lee (2007) for this work, and it is referenced later in the chapter as a comparator for the findings in our study.

Profile Compiled for PhD Supervisor's Skills and Knowledge			
Skills →	Project Management	Critical Analysis/thinking	Building Relationship

PhD Supervisor (Profile compiled)	Guiding, Directing and managing PhD thesis project	Developing arguments, Being reflective	Staying emotionally strong, emotional intelligence
Source: Adopted and developed from Pearson and Brew (2002) and Lee (2007)			

Table 1 Profile Compiled for PhD Supervisor's Skills and Knowledge

Halse (2011) pointed out that supervising PhD students' thesis affects the supervisors' learning. It's not just the PhD student who learns from being supervised but also their PhD supervisor. Increase in the accountability and quality in Higher Education Sector more widely also requires PhD supervisors to learn and update their skill set.

One of our interviewees pointed out that there was not much emphasis on the supervisor's training 25 years ago.

'When I started PhD student supervision 25 years ago, there was hardly anything for new PhD supervisors. It was more like learning by doing and I learned over a period of time sometimes by my own mistakes and sometimes by other's mistakes' (Reader, Social Science)

The above statement is a clear indication of how the academic environment has changed in the UK over a period of the last 25 years. Earlier there was not much emphasis placed on training PhD supervisors but now, with growing expectation from students and academic bodies this is central. The result is clearer guidance and more training available for PhD supervisors: reflected in the training offers made to PhD supervisors in our participating universities.

Another interviewee said

'I feel myself as a curious student when I go to attend these supervisors' refresher courses and there is always something new to learn. I learnt something new from every refresher course which I attended over the last ten years.' (Senior Lecturer, Business School)

It suggests that there is always potentially something new to learn from these refresher courses and as such they can add value to the PhD supervisor's portfolio.

Evaluation

The next part of the study consists of the evaluation of skills, knowledge and experience required of supervisors against the emerging profile generated from the literature review and research interviews.

- **Understating of PhD Programme's Rules and Regulations**

As a new employee to the business school and a PhD supervisor it is necessary to know the roles and responsibilities of a PhD supervisor. The Doctoral College or equivalent department is the central body of a university which keeps the latest information and updates at a national and international level in doctoral education. They also provide the training and refresher course to new PhD supervisors. The main aim is to inform the new rules and regulations and to discuss new issues. These may include:

- Doctoral college and what it can do for PhD supervisors
- Research Plan Approval (RPA): how important is this stage of a research degree and what are the key elements of an RPA?
- Update to current processes and protocols: student progression from induction to examination – what has and hasn't changed?
- Fostering researcher development

- **Subject Specialism of Supervisor**

For a PhD student, their supervisor is the main source of information for all the queries linked with their research area. Hence a PhD supervisor should have in-depth knowledge of the research area and also the cognate area (Gill & Burnard, 2008). In Business school, there is an emergence of cross-disciplinary PhD's having the main focus on management discipline but also linked with other areas e.g. psychology, environment technology, industrial engineering etc. In such cases, the supervisor's job becomes more challenging to guide the PhD students. As one of the interviewees put forward in their own words,

“The supervision process has changed over a period of time, earlier it was more individual subject-specific research, but nowadays the research is more cross-disciplinary in nature.

This change in research pattern is posing a challenge to PhD supervisors in their supervision.”

(PhD Supervisor, Business School)

- **PhD Supervision Process and Structure**

The Researcher Development Framework (RDF) was developed from empirical studies (Bray and Boon, 2011). These characteristics are placed in four domains and twelve sub-domains encompassing functional knowledge, intellectual ability and professional standards to do research as well as to work with others (Vitae, 2010). Vitae is the first point of contact/guide for anybody who is interested in academic research in the UK. As one of our interviewees points out:

‘Vita is the first thing we tell about our research students in UK. As the number of international students on PhD programs are increasing, it becomes necessary to inform them about the UK PhD structure and process. Same thing applies to PhD supervisors as well, now there are lots of PhD supervisors who didn’t complete their PhD in UK so they are not familiar with the UK PhD supervision structure. Hence it becomes important to inform them about the UK system of PhD supervision process.’ (Principal Lecturer, Business School)

- **Experience of International Students in UK Context**

International students constitute a major strength in postgraduate teaching and research student groups (Ryan & Viete, 2009). One of the Universities in the study has an international service desk which helps international students to settle into both the university and the city. International students in the study reported feeling deserted and depressed after a certain period of time. This is illustrated by the quote below from one of the research students interviewed. Completion of a PhD needs intensive self-study and motivation which is difficult for some international students who are not settled into student life and this takes a toll on their studies.

“After arriving in UK, I had to go through lots of bureaucratic processes, e.g. residence permit, registration with police, finding accommodation, opening bank account etc. and it affected my initial weeks of study period”. (International PhD student, Business School)

- **Understating of Academic Practices**

To understand the academic practice in a specific university takes time. The academic practices followed by different universities are sometimes different from each other but in broad sense they have very similar structures. Some of these practices may be learned from colleagues (other senior PhD supervisors within the Business School). During the interviews, one of the PhD supervisors pointed out that

'PhD supervision is a learning process and you learn something new with each new PhD student you supervise. So the more you supervise, the more you learn'. (Senior Lecturer, Business School)

- **Cultural Differences Between Supervisors and Supervisees**

Culture is an understated factor in PhD supervision (Cargill, 1998; Sinclair, 2004), and most of the time universities don't focus on it. The Doctoral College which is part of this study doesn't have any specific guidelines for addressing cross-cultural issues in supervision. However, international students do feel the cultural differences with their supervisors, as illustrated by the quote from one student outlined below. In the Business School, there are PhD students from different parts of the world, e.g. Middle East, South America, Africa, Asia etc. and the culture and teaching atmosphere in their native countries is likely to be quite different from here in the UK. In such cases, students may feel stressed at times as they may not be able to understand the non-verbal and local cultural norms.

"The teacher-student relationship is very different here as compared to my home country in Middle East. Sometimes, it's hard for me to understand the non-verbal communication due to the cultural differences". (PhD Student, Business School)

This highlights the need for PhD supervisors to have received appropriate training to understand and be able to support students whose experience prior to their current placement has been different.

- **Personal Experience as a PhD Student**

Personal experiences as a PhD student play a vital role in taking the position of a PhD supervisor (Gibbs & Griffin, 2013). We can look at and understand the need of a PhD student in a better manner. The UK Professional Standard Framework is really helpful in understanding the UK PhD system, but effective management of the needs of PhD students goes beyond professional standards frameworks. We interviewed some PhD students who are currently enrolled in a PhD program and one of them said:

'As an international PhD student, I find it really difficult to understand the expectation of my supervisor. There are certain rules but still there are lots of unsaid rules and expectations which are prevalent in the UK PhD system. And as English is not my mother tongue so it becomes difficult to read between the lines.' (PhD student)

This highlights the need for research students to specifically focus on research beyond their subject area, also needing to take the time to better understand the different regulatory systems here in the UK. By doing this they will be in a better position to be able to operate more effectively within these parameters. This requires a proactive mind-set on the part of the student, to recognise and acknowledge these cultural differences and then act accordingly, seeking to better understand the local context and how to operate effectively within it. All of this in turn will link into the future employability of the student, in particular it links to the need to focus on behaviour as a key feature of any approach, as referenced earlier in the study.

- **Move from Dissertation to Research Paper Approach**

There has been a shift in the PhD program in the UK over the past decade, a shift from a British approach to PhD programmes to an American approach to the PhD system (Connor, 2016). Largely, the British approach historically focussed on dissertation/thesis work after performing research work for three years. While in the American system of PhD the focus is on publishing the three papers during the PhD period (Davies & Rolfe, 2009). As mentioned by one of the interviewees:

‘Over the last decade I saw the change in approach of Universities towards the PhD programme, now the focus is more on publishing the papers during the PhD programme and it's affecting the type of supervision. Now I ask my PhD students to focus on publication from the very first day. (Professor)

In higher academic employment there is increasing focus on publication and its benefits to the university through improving reputation and therefore sustainable student recruitment. In the international, competitive market, flexibility and multiple focus is increasingly important.

- **Doctoral College Role**

At one university in this study, the Doctoral College has changed the PhD supervision process. Now it is a more structured and continuous overview of a student's progress in the PhD programme. Supervision is more specific and timely, and continuous review of progress means focus on quality from both sides. One interviewee said:

“The PhD programme at Business School is more structured nowadays, and the credit goes to Doctoral College which streamlined the whole PhD supervision system. It helps both PhD

students as well as supervisors to stay focused on their respective roles. Before the Doctoral College, things were not very clear in terms of PhD supervision.” (Principal Lecturer, Business School)

This highlights the additional opportunity to reflect on skills development and necessary guidance throughout the process. The whole process is reflective and responsive, enabling continuous skills improvement for both student and supervisor.

- **Role of Research Excellence Framework (REF)**

The Research Excellence Framework (REF) has changed the research scenario in UK Higher Education Institutions over the past three years. It replaced the RAE (Research Assessment Exercise) in 2014, which itself had been introduced in 1986. Regularly reviewed and updated, it is the new system of assessing the quality of research in the UK. Funding bodies in the UK use the outcome of REF to allocate funding to the Higher Education Institutions (REF, 2014). Research output from PhD supervision is well considered as part of the REF output. Hence there is a strong focus on PhD supervision resulting in publications, and supervisors should guide the PhD students in such a way so that they can publish in journals which are eligible for consideration in the REF. Table 1.a illustrates and evaluates the students’ learning profile as identified in the study against the profile compiled from literature reviews and interviews.

Skills →	Project Management	Critical Analysis/thinking	Building Relationship
PhD Supervisor (Profile compiled from literature review)	Guiding, Directing and managing PhD thesis project	Developing arguments, Being reflective	Staying emotionally strong, emotional intelligence
(knowledge, experience and skills)	Yes (Doctoral College helped to gain these skills)	Yes (Own experience as PhD student)	On-going (Support from peer supervisors/colleagues)

Table 1.a: Evaluation of current knowledge, experience and skills against the profile compiled in Table 1 on Role Profile page.

Discussion and Implication

The study provides an overview of the challenges facing doctoral students in their transition to the workplace and some of the considerations that can enable positive transition. Many PhD positions are paid (funded scholarships) and hence require doctoral students to undertake teaching/consultancy responsibilities in return, thus providing work experience in an academic environment. Some PhD's are also funded by industry where students spend a substantial amount of time in industry, providing relevant industrial experience. The PhD journey needs to be managed dependent on students' goals. Who are the key players in this journey? What role do they play in shaping their career pathways? What skills sets do they need?

These considerations are applicable to any higher education institution in the UK and to other countries where the academic system is similar. In some academic institutions, student placement is an integral part of both undergraduate and post-graduate programmes. Good guidance prior to placement can lead to a relevant job offer at the end of the placement term. There are specially designed manuals and literature (that are sometimes outdated) available in most universities regarding this. As institutions, we need to keep an eye on new trends in employment, and the key skills which employers seek in their employees, and ensure that this is reflected in the student offer, from under-graduate through to PhD level.

Research students are expected to engage in the programme during which they gain a range of valuable skills, in addition to the in-depth knowledge and understanding of their research topic. Skills development and understanding of work culture has a critical part to play in their employability in academia and in industry. It is well recognised that employers both within and outside of academia place great importance in, and recognise the value of developed transferable skills in prospective employees.

By planning and undertaking the right training, and thinking about their professional personal development, students can significantly improve their transition and employability.

Limitations and Future Research

The research work is based in only three academic institutions' business schools, so the results are likely to be applicable for similar institutions in the UK only. We cannot generalise and assume these results will apply in a wider context, as academic systems are different in different countries. Therefore, future research studies need to include bigger sample sizes to widen

relevance. Two potential research areas could be: Professional doctorate programmes, which are sometimes called a Doctor of Business Administration (DBA); and part-time PhDs.

Students who enrol in a DBA programme are expected to be in employment during the course of their programme. In these cases, students have the challenge of balancing work and academic requirements.

There is a growing number of students who prefer to go for part-time PhD studies because they have competing commitments outside of their academic studies. These students have very different needs compared to their full-time equivalents but there is not enough research to show the variety of issues and impact on transition, e.g. those students already working but in a different field to their studies.

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