



University for the Common Good

Developing early stage researchers: employability perceptions of social science doctoral candidates

Golovushkina, Elena; Milligan, Colin

Published in:

International Journal for Researcher Development

DOI:

[10.1108/17597511211278652](https://doi.org/10.1108/17597511211278652)

Publication date:

2012

Document Version

Peer reviewed version

[Link to publication in ResearchOnline](#)

Citation for published version (Harvard):

Golovushkina, E & Milligan, C 2012, 'Developing early stage researchers: employability perceptions of social science doctoral candidates', *International Journal for Researcher Development*, vol. 3, no. 1, 4, pp. 64-78. <https://doi.org/10.1108/17597511211278652>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

If you believe that this document breaches copyright please view our takedown policy at <https://edshare.gcu.ac.uk/id/eprint/5179> for details of how to contact us.

Developing early stage researchers: employability perceptions of social science doctoral candidates

Elena Golovushkina & Colin Milligan

Caledonian Academy, Glasgow Caledonian University, Glasgow, UK.

Abstract

Purpose: Employability has been the focus of much activity at both research and policy levels within higher education. Initially focused primarily on undergraduate students, in the past few years this area has broadened to include the employability of doctoral candidates discussed within a larger debate on development of researchers. Despite a strong focus on this aspect of researcher development, discourse in this area still lacks evidence of the views of postgraduate researchers themselves on the issues of employability. In an attempt to address this gap, this paper seeks to explore the perceptions of social science doctoral candidates on a range of employability-related issues.

Design/methodology/approach: Semi-structured interviews were conducted with 15 full-time doctoral candidates in different social science disciplines at a single UK university.

Findings: The paper presents the views of social science doctoral candidates on three aspects of employability: the concept of employability and its meaning for doctoral candidates; the way they perceive their own employability skills, knowledge and attitudes; and their awareness of labour market requirements. The study highlights the importance of original motivations, goals and expectations of doctoral candidates related to doing a PhD degree with their perceptions of employability and the skills, knowledge and attitudes they expect to develop.

Originality/value: The current paper helps to shed light on the ways doctoral candidates perceive employability and identify the gaps in their awareness of the skills, knowledge and attributes required by the labour market. Addressing an important aspect of doctoral education related to development of employability, the paper argues that in order for the researcher development initiatives to be successful there is a need to account for the role of “personal”, namely motivations, intentions and views of the participants of the learning process.

Introduction

In his 1994 book “Limits of Competence: Knowledge, Higher Education and Society” discussing the interrelationship of knowledge, higher education and society, Barnett (1994) posits that universities have become less places that provide a platform for personal and educational development but more businesses that ‘produce’ graduates with a set of competences required by the society. The increasing importance of the knowledge economy presents a new set of requirements for universities to produce graduates who can easily adapt to a new workplace and contribute to the success of their employer and to the wider economic prosperity of the country (Barnacle, 2005). The emergence of this role of modern universities has stimulated a discourse around the issues of graduate employability, what constitutes employability skills, knowledge and attitudes, and how they can be developed in a university setting.

Although initially focused primarily on undergraduate students, this discussion has broadened to include the development of employability skills of postgraduates, including doctoral candidates. PhD graduates are expected to develop and apply a wide range of skills, knowledge and attitudes in order to contribute to different sectors of the economy within and outside academia (Enders, 2004; Craswell, 2007; Park 2007; Mowbray and Halse, 2010). Meanwhile, the structure and content of doctoral training has been criticised as being too focused on the development of primarily discipline-specific knowledge and for preparing doctoral researchers only for careers in academia (Enders, 2004; EUA, 2005; Kehm, 2006; Park, 2007; Manathunga *et al.*, 2007; Manathunga *et al.*, 2009). In response, universities have used various researcher development mechanisms to raise awareness among doctoral candidates of alternative career destinations as well as preparing them for positions within and outside academia (Manathunga *et al.*, 2007).

Changing perceptions of the purpose of a PhD degree are also supported by evidence that shows a decline in the number of doctoral candidates that remain in academia upon graduation (Purcell *et al.*, 2005). A recent report from The Royal Society (2010) indicates that 53% of UK PhD graduates are employed in sectors outside academia six months after graduation. Similar figures are provided in a recent Vitae (2010b) report which found out that over 50% of UK PhD graduates were employed outside academia three years after graduation. The same trend is found in countries across Europe (Schwabe, 2011). A particular concern relates to doctoral candidates in social sciences who are traditionally more focused on academic careers compared to, for example, science and engineering students (Purcell *et al.*, 2005; Nerad, 2008; Raddon and Sung, 2009).

The field of researcher development has sought to address the challenges arising in doctoral education through research and practice. According to Evans (2011) there are still a number of important questions to be answered about the ways we view this field and the different approaches to developing researchers. In this paper we argue that in order to find answers to these questions, it is important to consider the views of doctoral candidates themselves on their motivations for doing a PhD, career development expectations and other researcher development related issues. While employability is one of the central aspects of researcher development, we know relatively little about the perceptions of employability held by doctoral candidates. In an attempt to address this gap and contribute to our understanding of this important aspect of doctoral training, we explored the perceptions of doctoral candidates on issues of employability through the following research questions:

- How do doctoral researchers view the concept of employability?
- What is their perception of their own employability skills, knowledge and attitudes?
- How aware are they of labour market expectations?

Employability - a contested concept

Analysis of research literature shows that despite a high level of attention paid to the concept, there is still no unified understanding of the term 'employability' and the debates around it cause confusion (McQuaid and Lindsay, 2005). Knight and Yorke (2003, p.5) define employability as a combination of "*achievements, understandings and personal attributes that make individuals more likely to gain employment and be successful in their chosen occupations*". Despite this definition being widely used in UK higher education, Knight and Yorke (2003) themselves note that there are certain limitations of their definition since it does not consider the external environment, which has a crucial impact on employability. From an employer's

perspective, the Confederation of British Industry (CBI, 2009) has adopted a broader view of employability as something that all individuals can develop, emphasising the contribution of the skills, knowledge and attributes that help individuals to be effective in the workplace and benefits a wider society.

The two views of 'employability' described above focus on the intrinsic nature of employability. However, having the right set of attributes does not guarantee anyone employment. As highlighted by Brown and Hesketh (2004), labour market conditions may dictate that not all suitably qualified candidates gain employment. Therefore, it is also important to consider the state of the labour market and issues of supply and demand. Lees (2002) also emphasises the need to differentiate between employment and employability, and defines employment as the state of having a job, and employability as possession of attributes required to obtain and maintain employment.

McQuaid and Lindsay (2005) attempt to address this dual nature of employability by developing a model that includes three main components: individual factors, personal circumstances and external factors. Individual factors include employability skills and attributes, adaptability, and mobility. These are complemented by personal circumstance such as access to resources, work culture and family responsibilities. Externally, employability is affected by labour market conditions and policy factors. Despite the importance of personal circumstances and external factors in employability processes, it is only the individual factors that can be directly influenced and shaped in the context of higher education. The holistic view of employability of the McQuaid and Lindsay model is also adopted for this study. As stated elsewhere (Rothwell *et al.*, 2009), a characteristic feature of this debate is that it rarely includes individual perspectives that are shaped by experiences, potential career aspirations as well perceptions of labour market conditions. To reflect this, one of the objectives of this study was to explore the views of doctoral candidates on this concept and the meanings they attach to it.

Employability of doctoral candidates

Significant changes to the content of researcher development have been made in response to changing expectations on the part of the government, employers and funders of the PhD degree (Boud and Lee, 2009). The modern knowledge workplace requires not only an output in the form of a thesis contributing new knowledge to a disciplinary domain but also a successful PhD graduate who possesses expertise in their research field and is also prepared for the world of work and to adapt to the requirements of the knowledge workplace (Barnacle, 2005).

Changes in the perception of the main purpose and product of a PhD degree have stimulated initiatives aimed at enhancing the employability and work-related learning of doctoral researchers. One approach suited particularly to technical and scientific disciplines, has been to fund joint PhD projects between academia and industry. One of the largest initiatives has been the establishment of Australian Cooperative Research Centres (CRC). A study conducted by Harman (2002) revealed that CRC research students are overall more satisfied with their doctoral training experience compared to PhD candidates on traditional programmes, and have a clearer and more positive view of their future careers. However, further studies on CRC doctoral experience conducted by Manathunga *et al.* (2009) identified that even CRC-trained doctoral researchers need further support and tailored training programmes, in order to prepare them for their career destinations.

There has also been an increased emphasis on provision of formal training in transferable skills. In the UK, for example, the recommendations of the Roberts report (Roberts, 2002) highlighted the need to introduce funded skills development for researchers and led to the establishment of

new researcher development programmes across the country. Despite evaluations demonstrating the benefits of such training for doctoral researchers (Vitae, 2010a), there is still a great deal of criticism of this skills development approach (Manathunga *et al.*, 2007; Mowbray and Halse, 2010). Criticising this “deficit model”, Craswell (2007) argues that it is based on an employability discourse that is reductive in nature, and underestimates the complexity of the learning process and knowledge production at PhD level.

In addition to providing various formal training programmes, higher education institutions all over the world have adopted skills frameworks that attempt to encompass attributes suited to the needs of industry as well as academia. Gilbert *et al.* (2004) reviewed different approaches to the development of transferable skills of doctoral students in Australia, USA and the UK, and identified several predominant skills frameworks. According to the Council of Australian Deans and Directors of Graduate Studies (1999), PhD candidates should possess relevant skills in several broad areas: thesis-specific knowledge and skills, communication skills, information skills, project-specific skills, cognitive skills including synthesis and analysis of information, and, finally, professional development and career management skills. In the UK, Research Councils have developed the Joint Skills Statement (2001) that subsequently served as a basis for the development of the Researcher Development Framework (RDF) that covers all groups of researchers from doctoral students to eminent professors (Vitae, 2010c). Unlike many other frameworks, the RDF was based on research and exploration of the views of researchers themselves on the attributes they should possess at different stages of their careers. In the USA, generic skills training of doctoral researchers is less centralised than in the UK and Australia. However, as a result of a number of large-scale projects including *Re-envisioning the PhD* and the *Carnegie Initiative on the Doctorate*, a number of core competences of PhD candidates have been identified (Gilbert *et al.*, 2004), including subject-specific knowledge, commitment to career development, teaching skills, communication and team working skills, ability to demonstrate the impact of research on society, and networking skills. Doctoral candidates are also required to have a global perspective on doctoral work, abide by ethical rules in the research process, and understand mentoring processes. There is of course no single set of skills that doctoral researchers should develop and the precise combination is largely determined by national as well as disciplinary requirements. Some researchers have questioned whether these numerous skills can be developed within the time allocated for a PhD project (Craswell, 2007; Mowbray and Halse, 2010).

At the same time a larger debate is required to determine to what extent these skills sets actually meet the needs of employers outside academia. Recent reports and data show that despite all efforts to prepare doctoral candidates for various careers, employers still harbour concerns regarding this. For example, a recent Council for Industry and Higher Education (CIHE) report (Connor *et al.*, 2010) revealed that 7 out of 10 employers state that PhD graduates experience considerable difficulties in adapting to non-academic environments. While employers value the subject-specific knowledge of PhD graduates, they think that PhD graduates lack skills such as creativity or leadership. Earlier studies revealed similar results: that employers would like PhD graduates to have better communications skills, strong leadership potential and the ability to work across different sectors and different teams (Purcell *et al.*, 2005).

While some of the initiatives on the part of policy makers, researchers and employers provide an insight into their views, we still know relatively little about the perceptions of doctoral candidates themselves on their employability and the ways they understand the requirements of the labour market in this changing environment. Tomlinson (2007) emphasises that most research in employability focuses on employment outcomes and relatively little is known about the ways individuals perceive and try to manage their own employability. A more in-depth understanding of researchers’ views is also required to support continuous improvement of researcher development programmes and make the transition to a more bottom-up approach. This study aims to provide some evidence to support these processes.

Method

This exploratory study was conducted as a part of a larger project investigating the employability of doctoral candidates. Here, we report the results of semi-structured interviews with 15 full-time social science doctoral candidates at a single post-1992 university in Scotland. All interviewees were participants of a traditional three-year PhD programme. Interviewees were all over 21, included seven female and eight male students, and comprised nine domestic and six overseas students. Two of the participants did not have any work experience prior to enrolling on a PhD programme, eight had worked outside academia, four had prior experience working in academia and one had been self-employed. Details of individual participants, along with assigned pseudonyms, are given in Table 1.

Table 1. Sample details

Participant pseudonym	Nationality	Gender	Year of study	Subject	Previous work experience
Michael	Africa	Male	2	Accounting	Outside academia
Jane	UK	Female	3	History	Outside academia
Ashley	UK	Female	2	Criminology	Outside academia
John	UK	Male	2	History	Outside academia
Kathy	Asia	Female	3	Marketing	Outside academia
Bogdan	Europe (not UK)	Male	2	Organisational learning	No
James	UK	Male	3	History	Outside academia
Adeola	Africa	Male	2	Accounting	Within academia
Alistair	UK	Male	3	Economics	Self-employed
Darius	Asia	Male	2	Tourism	Outside academia
Safrina	Asia	Female	1	Management	Within academia
Alice	UK	Female	3	Psychology	Within academia
Patricia	UK	Female	3	Education	Within academia
Rachael	UK	Female	3	Psychology	Outside academia
Brian	UK	Male	3	Psychology	No

Participants were recruited using a mixed sampling technique. Although some participants were known to the researcher (as peers), participation was voluntary and the participants were free to withdraw at any time. Questions used in semi-structured interviews (see <http://dl.dropbox.com/u/20956383/Questions.docx> for the interview schedule) were devised on the basis of the literature. Interviews lasted 50-60 minutes and were recorded, transcribed

and analysed using a thematic approach. Data coding and analysis was conducted using NVivo 8 software.

Findings

Motivations for doing a PhD degree

Prior to exploring doctoral candidates' perspectives on employability, it was important to clarify their motivations for undertaking a PhD degree. The factors that motivated these researchers to undertake a PhD degree can be broadly divided into two main categories: professional (improving/changing career paths) and personal (related to individual preferences and interests). The first category includes the largest group (8 out of 15) of doctoral candidates who specified their career as the major factor defining their decision to undertake a PhD. These interviewees expect their PhD degree to increase their prospects of developing an academic/research career. One interviewee described his motivation as follows:

It is based on my long-term desire to have a career within research and academia. Not only that... based on my developmental progress in the UK I found myself in academia. I worked in universities for a couple of years. So I found it logical to proceed to a PhD. (Adeola)

For some, the motivation to study for a PhD was connected with a decision to change their career path:

Because I had been working... and I could see my career progression being in university administration which was not really what I wanted to do... I wanted to get back into academia...and you need a PhD for that... (Alice)

Participants (4 out of 15) from the second category report a specific interest in their research topic as their main motivation, reflecting a personal rather than career-based decision. Other responses indicated that participants were influenced by a desire to undertake further studies and for personal development. While the majority of the participants had a clear motivation that can be included in one of the categories, one interviewee acknowledged the spontaneous character of the decision:

Well, the decision was kind of random. Because when I was doing my Masters' thesis I decided that I would not do a PhD. I started looking for a job, and this PhD just showed up...the opportunity was too good not to apply. (Bogdan)

These responses typify a range of motivations for pursuing a doctoral degree among which career aspirations and interest in the research topic are predominant.

Employability as a concept

Employability is still a contested concept in the research literature, and we also observed differences in the way these social science doctoral candidates understood it. The participants acknowledged that the term is well known to them and is widely used in the context of their PhD learning experience. However, confusion between the terms "employability" and "employment" is evident in the views of some (4 out of 15) doctoral researchers who provided responses to the question 'How do you understand the term *employability*?' One interviewee provided a "definition" of employment rather than employability: "the state of being employed" while two others indicated the same limited understanding expressed less explicitly, for example, "getting a job upon graduation". On the other hand, a large majority (11 out of 15) of the participants'

understanding of employability reflects its intrinsic nature representing a collection of the skills that a graduate should possess. This interviewee emphasised the link between skills and career outcomes:

I suppose the way I think about it (employability) is the transferable skills that you learn when you are doing something that would increase your likelihood of being employed (Rachael).

Demonstrating a similar view of employability, another interviewee emphasised transferability by stating:

For me it is the possession of a broad range of skills that can be adaptable to different scenarios. (Ashley)

Other participants touched on issues of self-presentation, emphasising that it is important not only to have the required skills but also to be able to demonstrate them:

It can mean an ability to sell yourself, package yourself, make yourself useful to an individual or a corporate organisation. (Adeola)

Similarly, another interviewee noted that employability includes the ability “to fit in” and adapt to the culture of a potential employer. Overall, eleven out of fifteen interviewees viewed employability as something intrinsic, something they need to develop in order to be successful in the job market in the future. None of the participants highlighted the dual nature of employability. Although most students understood the idea of employability as having the required attributes to work, and some understood it as the state of being employed, none articulated the relation between these two components. Apart from recording the views of these doctoral candidates on the concept of employability, the responses shed some light on the content of the individual aspect of employability, namely, skills, knowledge and attitudes that would help researchers to be more employable and successful in the chosen career paths.

Self-perceived employability (individual factors and personal circumstances)

In order to understand the ways social science doctoral candidates perceive different aspects of employability, it was important to explore the career paths the PhD candidates planned to pursue. Nine of fifteen interviewees expected to develop their career in academia. This included seven out of eight interviewees who had worked outside academia prior to starting their PhD studies. However, as has been previously noted, a large number of PhD graduates will have to develop a career outside academia. One participant, conducting research on an academia-industry partnership project, felt that he could find himself equally satisfied in either sector. Two participants who expected to find a job outside an academic context were studying in a business school, and also had strong links with industry due to the applied nature of their research. Three of fifteen participants had already secured employment in academia and this determined their perceptions. For example, one interviewee showed awareness of the skills required for a specific academic role, stating that she wanted to get a PhD and develop research skills “to be able to teach and supervise higher level students - Masters and PhD - back home” (Safrina). When discussing their overall preparedness for the world of work, the interviewed doctoral candidates were positive about their prospects:

I definitely feel that I am much more employable than I was a couple of years ago... because I’ve developed so much, I’ve learnt so much.... in general I’ve grown so much as a person in this experience... I would be quite positive about my employability. (Alice)

The impact of personal circumstances was evident in the responses provided by some participants. Four participants had family commitments, three as mothers who would like a family-friendly job. Such criteria can significantly limit their opportunities in the job market. The response from one third year interviewee provides a typical example:

I have two small children to look after so I will be looking for a part-time research job in academia when I finish. I just hope that something will come along that will be appropriate and fit all my criteria. It needs to be flexible, family-friendly and all these kind of things. It's a bit of a worry. (Patricia).

Preference for location, in combination with strict criteria for the expected job position can also be a limiting factor and have a negative impact on employment prospects. Another interviewee also recognised the impact it might have:

It's not quite so easy to get a job in academia since the nearest university is within 1.5 hours (quite far)...So my choice is very limited and determined by my location. But I would not rule out moving if the worst came to it... (Rachael)

One interviewee highlighted that a key element of being employable is to be flexible, "the ability to adapt yourself to different jobs especially in the current labour market" (Bogdan). Despite the concerns described above, the majority of those interviewed were positive about their employability. However, this perception relates mainly to their suitability for academic and research jobs. Some participants questioned their suitability for jobs outside academia emphasising the prospect of being overqualified. This raises further concerns about the effectiveness of researcher development programmes that aim at making doctoral candidates more aware of alternative career paths, and the ways that skills developed during candidature can be applied in different contexts.

Awareness of labour market expectations (external factors)

The labour market agenda and the need to meet the expectations of employers in various sectors has influenced researcher development initiatives in the UK (Houston and Lumsden, 2011). Understanding the requirements of the labour market can be an important factor in determining the success of post-graduation employment. The following comment is indicative of the concerns with regard to the recent economic crisis and the state of the labour market:

I am really not positive about the job market. There are so few jobs now. And if I don't get a job in academia, I am overqualified for other things. And I feel worried about the employability prospects. Not because I think I am not a good candidate. I think my employability skills are good. But I think everybody's employability skills are (good) at the moment (Alice).

These views have a special significance in the climate of funding cuts in higher education that are likely to lead to a reduction of academic positions available for PhD graduates.

These results indicate that the interviewees' awareness of labour market requirements is largely determined by their initial motivations for doing a PhD and career path intentions. The responses related to employers' expectations can be divided into three categories: subject expertise, relevant skills and work experience. Five participants expressed the view that PhD candidates possess strong subject expertise compared to undergraduate/Masters students, and that this can be attractive to employers in specific fields. One interviewee explicitly linked expertise to the perception of potential employers:

I think the main thing is the expertise. The employers will see you as a completely different person compared to the undergrads. They would expect you to be much more specialised in your field and much more professional. (Kathy)

A majority (9 out of 15) of the participants view research skills as the main asset that should be attractive to an employer. Comparison of the responses showed that those participants who expressed an intention to pursue career in academia recognised that research skills, teaching and a strong publication record would make them more employable. Two participants expressed concern that a focus on one type of research methodology may limit the number of research jobs they can apply for and they should be developing additional research skills in order to be more employable. As one interviewee explained:

My idea would be when I finish I will apply for a postdoc... I think I would have a decent chance but it would depend on research project. For example, I have experience in qualitative research and I cannot expect a job in quantitative research. (Ashley)

A number of students also emphasised the advantage of working on a long-term project that helps them to develop essential project management skills. For example:

It's important to demonstrate that you are able to conduct research within a set time and successfully complete it, and even show that you are able to juggle other things like teaching at the same time. (Jane)

Among other frequently cited attributes were a strong publication record, communication and presentation skills. In addition to this, other skills perceived to be required by employers and reported by PhD candidates are, information management and problem solving skills.

The participants were also asked to give advice to other students, and name three things that doctoral researchers need to do during their studies to enhance their career prospects upon graduation. Nine participants felt that gaining teaching experience is vital if opportunities are available. This group included the seven participants that see themselves in an academic career in the future and are or have been undertaking teaching duties as a part of their PhD studies. One participant noted that it is also important to be strategic when undertaking teaching, and to try to teach different modules. Some doctoral candidates (5 out of 15) also recommend that their peers publish research papers while doing a PhD. Networking is the third most popular in the list of things that should make PhD students more employable through developing professional connections. Apart from research-related activities, doctoral candidates emphasised the importance of extra-curricular activity. Five participants indicated that it is important to be involved in other activities outside the PhD. As one third year interviewee stated: "you are not going to get anywhere just doing your PhD. You do have to look beyond!" (James).

Among extra-curricular activities that PhD students are involved in, and that are, according to their views, contributing to their employability are attending conferences, extra courses, seminars, skills development workshops, subject-specific PhD groups, involvement in external projects, organising seminars, and volunteering. One student provided a list of additional activities:

It's not enough just to get a PhD. You have to attend seminars, conferences. Go (the) extra mile to join various organisations and bodies. (A) PhD is not just about writing a thesis. Do other things that are linked to employability. (Adeola)

This and other students recognise that it is not enough just to gain a qualification, and doctoral researchers must be proactive and seek other opportunities for their development during candidature.

Discussion

The research findings allowed us to identify several issues that contribute to our understanding of the perceptions of doctoral candidates on employability.

The study links the original motivations, goals and expectations of doctoral candidates related to doing a PhD degree with their perceptions of employability and the employability skills, knowledge and attitudes they expect to develop. This finding is reflected in the literature on the interconnected nature of actions and goals. Initial goals determine the motivation and the subsequent actions that an individual might pursue in order to achieve these goals (Gollwitzer and Bargh, 1996). In a similar way, goals and aspirations of doctoral candidates may determine the activities they choose in the process of their studies that will contribute to development of their employability. The predominant types of motivations for pursuing a PhD degree found in this study are related to improvement of career prospects (professional motivation) and interest in the research topic (personal motivation). These results are similar to those found from the UK Postgraduate Research Experience Survey (Hodsdon and Buckley, 2011). McAlpine and Turner (2011) have investigated the role of individual agency in career development and argue that more attention should be paid to the initial intentions that individuals bring with them when embarking on a research journey. In this study, our analysis demonstrated that initial motivations of doctoral candidates for undertaking a PhD degree particularly those related to their career aspirations strongly influence their perceptions of employability, the skills, knowledge, attitudes they are expecting to develop and their awareness of labour market requirements.

We found differing perceptions of the concept of employability among doctoral researchers. A minority of researchers understood it as a state of being employed, while the majority viewed employability as the possession of relevant skills that will make them more likely to secure employment upon graduation. Our findings confirm that there is confusion between employability and employment as described by Lees (2002). This difference in perceptions may have some implications for the ways doctoral candidates view their own employability, and the extent to which they take responsibility for enhancing it. Viewing employability as merely dependent on labour market conditions may create a situation where they underestimate their chances of successfully gaining a job. Consideration of these aspects should be addressed in researcher development programmes.

More than half of the interviewees were positive that they possessed the required attributes to meet the expectations of the labour market. Concerns were, however, raised with regard to unstable conditions of the job market itself and lack of opportunities. Self-perceived employability is directly linked to the career path these PhD researchers are pursuing. Similar to the typology developed by Vuolanto *et al.* (2006, in Kyvik and Olsen, 2011), the participants of this study can be divided into researcher type (interested in careers in academia), non-academic type (interested in careers outside academia) and random type (motives are unclear). In our sample, a large majority (twelve) of the interviewed doctoral candidates intended to pursue an academic career. In this respect it is important to consider the role of academic identity formation in this process. Being involved in multiple academic and research activities, doctoral candidates inevitably develop a sense of belonging to the university community (McAlpine *et al.*, 2009) that might determine their view of their skills, the applicability of these skills in different contexts and their perception of future career paths. As has been highlighted elsewhere (Holmes, 2001; Tomlinson, 2007) the work-related identity developed by students plays a crucial role in contributing to the ways graduates approach the whole issue of their

employability. Holmes (2011), proposed that changes should be introduced in the curriculum to promote development of graduate identity. In a similar way, it is important to consider a 'graduate identity' approach in researcher development encouraging researchers to articulate their career intentions and reflect on the skills, knowledge and attitudes they develop and might need in their future job. Some responses in this study highlight the challenging nature of the transferability of skills to different contexts. Hager (2006) argues that transfer of skills occurs only rarely even within one's own specialist field, and the applicability of these skills outside the context of acquisition is questionable (Hager, 2006; Craswell, 2007). Further research needs to be conducted to explore the role of employers in transferability of skills and the extent to which the explored issues are accounted for in existing researcher development programmes. Researcher development programmes that place identity and transferability issues at the core, would provide a means to bring these issues to the fore and create a greater impact.

Our research also highlights the mismatch between the perceptions of doctoral researchers and expectations of non-academic employers. While research indicates that employers want PhD graduates to be commercially aware and possess strong leadership potential (Connor *et al.*, 2010), none of the interviewees identified these skills as important for development of their employability. Another skill traditionally valued by employers is team working (Purcell *et al.*, 2005), however this skill was also absent from the reports collected here. Social scientists and are used to working mainly on individual projects and this might prevent them from explicitly recognising their skills as a team worker. Another continuing criticism on the part of employers is their view that PhD graduates are not flexible enough and find it difficult to adapt to the non-academic environment (Usher, 2002). In the literature this process is known as career adaptability: the ability of an employee to cope with unpredictable tasks and situations in different types of workplace (Savickas, 1997). Only one of the interviewees highlighted an ability to adapt and be flexible as an essential factor contributing to their employability.

This study demonstrates that, despite a significant investment on the part of researcher developers and policy makers in making students more aware of alternative career paths, doctoral candidates (at least within the social science disciplines represented here) still primarily view a PhD degree as a prerequisite to securing a position in academia. This aspect should be considered when developing and presenting developmental opportunities to researchers. The way it can be integrated in researcher development, as one participant stated, is to find out from prospective PhD applicants "what people actually want to do, what is the motivation for the person doing this" (John) before doctoral candidates commence their PhD studies. In this sense it is important to consider the motivations of individuals engaging in PhD studies since, as our study shows, this affects their articulation of goals, their perception of attributes required for their career after completion and defines the activities that PhD candidates might engage in to develop their employability. Perhaps one of the fundamental problems here is that research degrees nowadays are still being "sold" and perceived as leading to an academic career. It is important to emphasise the variety of career paths to potential candidates before they enrol on a PhD programme. As stated by Åkerlind (2007), failure to do this leads to potential challenges and disappointment at later stages in researchers' career development. Highlighting the necessity of preparing for a variety of careers from the very beginning might help candidates to develop a particular mindset of preparing themselves for different career paths.

The study, although limited in scope, has important implications for development of researchers in higher education. We suggest that it is important not only to provide an environment that would support development of employability during the PhD process but also ensure that this environment accounts for the role of individual motivations, career aspirations and views of employability. Consideration of these aspects, that should begin early in the PhD process, along with encouragement of PhD candidates to consider employability issues, is vital for success of researcher development initiatives.

Concluding remarks

In an attempt to contribute to the researcher development debate on employability, we explored the perceptions of the main stakeholders of the doctoral learning process - doctoral candidates themselves - on various employability-related issues. Representing a group of researchers from a single institution, the views of the participants are determined by their local research environment and research community and the development opportunities available to them within this particular institution. No significant differences have been identified in the perceptions of doctoral candidates in different years of study perhaps reflecting the low representation of first year students in the study.

Further research needs to be conducted exploring the views of early stage researchers from different types of higher education institutions. A deeper understanding may be gained from research comparing the motivations and perceptions of social scientists with those of science and engineering students on these issues, recruiting a larger interview sample, as well as contrasting their perceptions with those of other institutional stakeholders and employers.

This study, although limited in scope, helps to shed light on the ways doctoral candidates perceive their employability and identify gaps in their awareness of the skills, knowledge and attitudes required by the labour market. Addressing an important aspect of researcher development related to development of employability, we argue that in order for the researcher development initiatives to be successful and contribute to behaviour change there is a need to account for the role of personal motivations, intentions and views of the participants of the learning process. This in-depth understanding is essential to influence a bottom-up approach to changing and reshaping of doctoral programmes.

References

- Åkerlind, G. (2005), "Postdoctoral researchers: roles, functions and career prospects", *Higher Education Research and Development*, Vol. 24 No 1, pp. 21-40
- Barnacle, R. (2005), "Research education ontologies: exploring doctoral becoming", *Higher Education Research & Development*, Vol. 24 No.2, pp. 179-188.
- Barnett, R. (1994), *The Limits of Competence: Knowledge, Higher Education and Society*, The Society for Research into Higher Education, Buckingham.
- Boud, D. and Lee, A. (2009), *Changing practices of doctoral education*, Routledge, Abingdon.
- Brown, P. and Hesketh, A. (2004), *The mismanagement of talent: employability and jobs in the knowledge economy*, Oxford University Press, Oxford.
- Confederation of British Industry (2009), "Future fit: preparing graduates for the world of work", available at: http://www.cbi.org.uk/media/1121435/cbi_uuk_future_fit.pdf (accessed 2 September 2011).
- Connor, H., Forbes, P. and Docherty, D. (2010), "Talent fishing: what businesses want from postgraduates. A CIHE report for Department of Business, Innovation and Skills", available at: <http://www.cihe-uk.com/category/skills> (accessed 29 November 2010).
- Council of Australian Deans and Directors of Graduate Studies (1999), "Statement on Skills Development for Research Students", available at: http://www.ddogs.edu.au/files?folder_id=1238321968 (accessed 20 November 2010).

- Craswell, G., (2007), "Deconstructing the skills training debate in doctoral education", *Higher Education Research & Development*, Vol. 26 No. 4, pp. 377-391.
- Enders, J. (2004), "Research training and careers in transition: a European perspective on many faces of the PhD", *Studies in Continuing Education*, Vol. 26 No.3, pp. 419-429.
- European University Association (2005), "Doctoral programmes for the European Knowledge society: report on the EUA doctoral programmes project 2004-2005", available at: http://www.eua.be/eua/jsp/en/upload/Doctoral_Programmes_Project_Report.1129278878120.pdf (accessed 25 September 2011).
- Evans, L. (2011), The scholarship of researcher development: mapping the terrain and pushing back boundaries, *International Journal for Researcher Development*, Vol. 2 No: 2, pp.75 – 98.
- Gilbert, R., Balatti, J., Turner, P. and Whitehouse, H., (2004), "The generic skills debate in research higher degrees", *Higher Education Research & Development*, Vol. 23 No. 3, pp. 375-388.
- Gollwitzer, P.M. and Bargh, J.A., (1996), *The psychology of action: linking cognition and motivation to behaviour*, The Guilford Press, New York, NY.
- Hager, P., (2006), "Nature and development of generic attributes", in Hager, P. and Holland. S., (Ed.) *Graduate Attributes, Learning and Employability*, Springer, Dordrecht pp. 17-49.
- Harman, K. (2002), "The Research Training Experiences of Doctoral Students Linked to Australian Cooperative Research Centres", *Higher Education*, Vol. 44 No. 3, pp. 469-492.
- Harvey, L. (2001), "Defining and Measuring Employability", *Quality in Higher Education*, Vol. 7 No.2, pp. 97-109.
- Hodsdon, L. and Buckley, A., (2011), "Postgraduate Research Experience Survey: 2011 results", available at: http://www.heacademy.ac.uk/assets/documents/postgraduate/PRES_report_2011.pdf (accessed 1 December 2011).
- Houston, K. and Lumsden, P., (2011), "Postgraduate researcher employability: an analysis of reflective journaling from a careers programme", *International Journal for Researcher Development*, Vol. 2 No. 1, pp. 61-67.
- Joint Statement of the UK Research Councils' Training Requirements for Research Students (2001), available at: <http://www.vitae.ac.uk/cms/files/RCUK-Joint-Skills-Statement-2001.pdf> (accessed 1 November 2009).
- Kehm, B. M., (2006), "Doctoral Education in Europe and North America: A Comparative Analysis", in Teichler, U., (Ed.), *The Formative Years of Scholars*, Portland Press, London, pp. 67-78.
- Knight, P.T. and Yorke, M. (2003), *Assessment, Learning and Employability*, Open University Press, Maidenhead.
- Kyvik, S. and Olsen, T.B., (2011), "The relevance of doctoral training in different labour markets", *Journal of Education and Work*, iFirst Article, pp. 1-20.
- Lees, D., (2002), "Graduate Employability: a literature review", available at: <http://www.palatine.ac.uk/files/emp/1233.pdf> (accessed 23 May 2010).

- McAlpine, L., Jazvac-Martek, M. and Hopwood, N. (2009), "Doctoral student experience in Education: Activities and difficulties influencing identity development", *International Journal for Researcher Development*, Vol. 1 No 1, pp.97-109.
- McAlpine, L. and Turner, G., (2011) "Imagined and emerging career patterns: perceptions of doctoral students and research staff", *Journal of Further and Higher Education*, 1-14, iFirst Article
- McQuaid, R.W. and Lindsay, C., (2005), "The concept of employability", *Urban Studies*, Vol. 42 No. 2, pp. 197-219.
- Manathunga, C., Lant, P. and Mellick, G., (2007) "Developing professional researchers: research students' graduate attributes", *Studies in Continuing Education*, Vol. 29 No.1, pp.19-36.
- Manathunga, C., Pitt, R. and Critchley, C., (2009), "Graduate attribute development and employment outcomes: tracking PhD graduates", *Assessment & Evaluation in Higher Education*, Vol.34 No.1, pp. 91-103.
- Mowbray, S. and Halse, C., (2010), "The purpose of the PhD: theorising the skills acquired by students", *Higher Education Research & Development*, Vol. 29 No. 6, pp. 653-664.
- Nerad, M., (2008), "Confronting Common Assumptions: Designing Future-Oriented Doctoral Education" in Ehrenberg, R. and Kuh, C., (eds). *Doctoral Education and the Faculty of the Future*. Cornell University Press, NY, pp. 80-93
- Park, C., (2007), "Redefining the doctorate", Discussion paper, Higher Education Academy, available at: <http://eprints.lancs.ac.uk/435/> (accessed 25 October 2009).
- Purcell, K., Elias, P., Durbin, S., Davis, R. and Warren, S., (2005), "The employment of social science PhDs in academic and non-academic jobs: research skills and postgraduate training", available at: <http://bit.ly/KhJoPp>, (accessed 15 July 2010).
- Raddon, A. and Sung, J., (2008) "The Career Choices and Impact of PhD Graduates in the UK: A Synthesis Review". Report prepared for the Economic and Social Research Council (ESRC) "Science in Society" Team and the Research, available at: http://www.esrc.ac.uk/_images/career-choices-and-impact-on-graduates-report_tcm8-6388.pdf (accessed 20 November 2011).
- Roberts, G., (2002), "Set for success", available at: <http://www.vitae.ac.uk/policy-practice/1393-3083/SET-for-Success-Final-Report-of-Sir-Gareth-Roberts-Review.html> (accessed 12 September 2010).
- Rothwell, A., Jewell, S. and Hardie, M., (2009), "Self-perceived employability: investigating the responses of post-graduate students", *Journal of Vocational Behaviour*, Vol. 75 No. 2, pp. 152-161.
- Savickas, M. L., (1997), "Career adaptability: An integrative construct for life-span, life-space theory", *Career Development Quarterly*, Vol. 45 No. 3, pp. 247-259.
- Schwabe, M., (2011), "The Career Paths of Doctoral Graduates in Austria", *European Journal of Education*, Vol. 46 No. 1, pp. 153-168.
- The Royal Society (2010), "The Scientific Century: securing our future prosperity", available at: <http://royalsociety.org/the-scientific-century> (accessed 10 October 2010).
- Tomlinson, M., (2007), "Graduate employability and student attitudes and orientations to the labour market", *Journal of Education and Work*, Vol. 20 No. 4, pp. 285-304.

Usher, R., (2002), "A diversity of doctorates: fitness for the knowledge economy?" *Higher Education Research and Development Journal*, Vol. 21 No. 2, pp. 143-154.

Vitae (2010a), "The impact of researcher training and development: two years on", available at: http://www.vitae.ac.uk/CMS/files/upload/IEG_Development%20Report2010_soft%20copy.pdf (accessed 1 October 2010).

Vitae (2010b), "What do researchers do? Doctoral graduate destinations and impact three years on", available at: <http://www.vitae.ac.uk/researchers/1272-290131/What-do-researchers-do-Doctoral-graduate-destinations-and-impact-three-years-on.html> (accessed 15 October 2010).

Vitae (2010c), "Researcher Development Framework", available at: <http://www.vitae.ac.uk/CMS/files/upload/Vitae-Researcher-Development-Framework.pdf> (accessed 27 October 2011).

Journal:	International Journal for Researcher Development (ISSN: 1759-751X)
RoMEO:	This is a RoMEO green journal
Paid OA:	A paid open access option is available for this journal.
Author's Pre-print:	✓ author can archive pre-print (ie pre-refereeing)
Author's Post-print:	✓ author can archive post-print (ie final draft post-refereeing)
Publisher's Version/PDF:	✗ author cannot archive publisher's version/PDF
General Conditions:	<ul style="list-style-type: none"> • Voluntary deposit by author of author's pre-print or author's post-print allowed on author's personal website or Institutional repository, where there is no mandate to deposit • If mandated by a funding agency, the author's post-print may be deposited in any open access repository after a 24 months embargo period • Author's pre-print and Author's post-print not allowed on subject-based repository • Must link to publisher version with DOI • Publisher version cannot be used • Published source must be acknowledged with set statement • Non-commercial
Mandated OA:	(Awaiting information)
Paid Open Access:	Open Access for authors
Notes:	<ul style="list-style-type: none"> • Publisher last contacted on 02/04/2013
Copyright:	Emerald and Open Access - Emerald Author rights
Updated:	07-Jun-2013 - Suggest an update for this record
Link to this	http://www.sherpa.ac.uk/romeo/issn/1759-751X/

page:

Published by: [Emerald](#) - [Green Policies in RoMEO](#)

This summary is for the journal's *default* policies, and changes or exceptions can often be negotiated by authors.

All information is correct to the best of our knowledge but should not be relied upon for legal advice.