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Stories of Career Adaptability from England and Norway

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Abstract:

Career adaptability is mediated partly by individual personality factors and socio-psychological processes, but learning and development can play an important role too. A recent qualitative investigation into the career adaptive behaviour evident in adults' career narratives in two countries was undertaken by a team of researchers from the Institute for Employment Research, University of Warwick for the UK Commission for Employment & Skills (UKCES). Interview data from 32 interviews with adults in the Norwegian labour market were analysed inductively and compared with data from 32 interviews with adults in transition in the UK labour market. This paper will present some of the results from this study and identify how adaptive individuals had used learning and development to support their navigation of their career pathways over time and across occupations and sectors.

The career stories from the different country contexts indicate that adopting a competency approach towards developing career adaptive behaviour could provide a useful framework to promote the need for individuals to adopt certain behaviours to help them to realise their career aspirations. The research undertaken for the study indicated that the role of learning in developing career adaptability at work has four dimensions. The first involves learning through challenging work – mastering the practical, cognitive and communicative demands linked with particular work roles and work processes. The second has a primary cognitive focus and involves updating a substantive knowledge base (or mastering a new additional substantive knowledge base). Knowledge updating may play an important role in extending adaptability beyond a focus on the current work role. The third dimension has a primary communicative focus and comprises learning through (and beyond) interactions at work. Finally, the fourth dimension focuses upon how career adaptability is facilitated by individuals becoming more self-directed and self-reflexive in their learning and development.

Drawing upon key findings, the potential relationship to UK policy developments are considered within the context of social mobility, an all-age careers service, employability and skills supply. It is argued that there is a new requirement to move beyond traditional and static concept of 'employability' so that individuals are better equipped to be more resilient and to manage risk and uncertainty in fast changing and unpredictable education and labour markets. One crucial element in understanding skills supply (the accumulation of skills) and successful labour market transitions is through a closer examination of the concept of 'career adaptability'.

Methodology:

An explicitly qualitative evaluation of the career biographies of adults was carried out in two country contexts to identify how they had navigated their career pathways over time and across occupations and sectors. This research builds upon work previously undertaken for a European study which is part of an on-going international twenty country research project.

Keywords:

Career; adaptability; social mobility; skills supply; competences; employability.

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1. Introduction

This study explored the concept of career adaptability and builds on existing national and international research, as it seeks to represent the wide range of goals, aspirations, achievements and identities that shape the way that individuals interact with and move through the labour market. It highlights the dynamic way in which individuals engage with learning and development pathways, sometimes with transformational shifts in perspective as their careers unfold, which can involve periods of up-skilling and re-skilling. The research considers the potential advantages of career adaptability: for improving public policy in areas such as the quality and effectiveness of career support services; and for encouraging greater autonomy and control by individuals of their careers (Bimrose, Brown *et al.*, 2011). What is often missing in any analysis of skills problems is a sense of the progression of individuals through work across the life course, particularly insofar as this involves movement between sectors. As a consequence, the dynamic way in which individuals become engaged with learning and development pathways, which can involve up-skilling, re-skilling and sometimes transformational shifts in perspective as their careers unfold, has remained largely absent from current policy analysis in this area.

This research examined the potential of the concept of career adaptability for increasing the quality of careers support services and enabling individuals to become self-sufficient by supporting themselves. The relationship between career adaptability and employability is considered alongside relevant policy initiatives that could benefit, potentially, from the adoption of career adaptability both by individuals and organisations. Findings highlight the need for a stronger policy framework that helps motivate and inspire individuals to take action at different ages and stages in the life course (that is, new ways of combining learning, earning and active citizenship). Individuals have a wide range of goals, aspirations, achievements and identities, which emerge in a variety of community contexts, institutions, qualification structures and labour markets. Those who do not engage in substantive up-skilling or re-skilling through either formal learning or learning through work, for periods of five to ten years, run the risk of being 'locked into' a particular way of working. They become more vulnerable in the labour market, especially where there is a significant change in their job or their circumstances, because their ability to be adaptable with regard to their career

progression can decay. The research findings indicate that adopting a competency approach to developing career adaptive behaviour could provide a useful framework to promote the need for individuals to adopt certain behaviours to help realise their career aspirations. Additionally, this approach offers a potentially constructive framework for raising awareness of self-defeating behaviours in which some individuals may be inclined to engage.

2. What is 'career adaptability'?

A key focus for this study was to explore whether and how career adaptability can impact positively on skills development and supply in the UK by encouraging and supporting autonomy in individuals. The term career adaptability describes the conscious and continuous exploration of both the self and the environment, where the eventual aim is to achieve synergy between the individual, their identity and an occupational environment. Developing career adaptability has a focus on supporting and encouraging individuals to be autonomous, by taking responsibility for their own career development. The operational definition of career adaptability used for this study was: **'The capability of an individual to make a series of successful transitions where the labour market, organisation of work and underlying occupational and organisational knowledge bases may all be subject to considerable change'**. Using this definition, it has been possible to focus on the practical implications of career adaptability, alongside the drivers for its development at the level of the individual.

A psycho-social perspective was adopted for the study, which looked at the psychological development of individuals within a social environment. This approach distinguishes between personality characteristics related to adaptability (like being proactive or flexible), which can be regarded as pre-requisites of adaptive behaviour, alongside the psycho-social self-regulatory competencies that shape career adaptive strategies and behaviours within work. It is also helpful in that it focuses on the need for individuals to self-regulate to accommodate change that has the potential to impact on the particular social context in which they are located. This includes the disequilibrium that is likely to be caused by: occupational traumas (like redundancy); employment transitions (like job change); and developmental tasks (like the need to up-skill or re-skill). It can be driven by an individual seeking new challenges or wishing to adopt new perspectives associated with engagement in substantive personal development. Because adaptability is closely linked to identity development, the willingness to engage with a complex career trajectory, rather than seeking stability, is likely to vary amongst individuals.

3. Individual characteristics of career adaptability

Career adaptability is mediated by a number of individual personality factors and is associated with other closely related variables. A set of five career adaptive competencies (control, curiosity, commitment, confidence and concern) developed from on-going international research, provides a useful framework for a retrospective examination of career adaptive behaviour in 64 career narratives of adults from two countries (the UK and Norway). Not all personality factors and associated variables are evident in the stories of all the adults who demonstrated career adaptive behaviour in this research. For example, some adults did not regard themselves as planful, recognising, with the benefit of hindsight, that this had been something of an impediment. They were, however, still able to demonstrate how they could be adaptive in their approach to their own career progression.

What is evident from this research is that varied combinations of the factors and behaviours associated with career adaptability are identifiable across both different career trajectories and across country contexts. The competencies for developing career adaptive behaviour, however, seemed to hold constant in those demonstrating high levels of adaptability.

This study involved an explicitly qualitative evaluation of the career biographies of 64 adults across two different country contexts: the UK and Norway (32 in each). It sought to identify how adaptive individuals had navigated their career pathways over time and across occupations and sectors. For this study, interview data from 32 interviews with adults in the Norwegian labour market previously undertaken for a European study have been analysed and compared with data from 32 interviews with adults in transition in the UK labour market, undertaken specifically for this study. Additionally, the research complements and extends an ongoing international, twenty country study into the concept of career adaptability and quantitative measurement of this concept (Savickas *et al.*, 2009; Savickas & Porfeli, 2010).

4. Research Methodology

This study was built upon a major ten country investigation into changing patterns of career development across Europe, which highlighted how some people were much more successful than others in negotiating a series of work-related transitions (Brown *et al.*, 2010). From this European study, interview data from 32 interviews with adults in the Norwegian labour market have been analysed and compared with data from 32 interviews with adults in transition in the UK labour market, undertaken specifically for this study. For the UK sample, data were collected from a variety of individuals to ensure a varied and interesting sample. The sample was primarily drawn from people currently in occupations requiring a high level of skill, but it should be noted that preference was given to those who had changed career

and/or who had at some stage of their career worked in low skilled employment, with a minority of respondents currently working in relatively low skilled occupations. Researchers were selective in the sampling, but only to the extent of ensuring a balance of male and female participants across the age range employed in a variety of sectors. Women outnumbered men, which is typical of research populations generally, where volunteers are sought. Of the 32 interviewees comprising the UK sample, 20 were female and 12 were male. A small proportion of the interviewees 3 and 1 were aged 19-29 years and 60 plus, respectively. Higher proportions were aged 30-39 years (9), 40-49 years (9) and 50-59 years (9). Nearly half of interviewees were in full-time employment at the time of the interview (15), 6 were in part-time work, 7 were self-employed and the remaining 4 were unemployed (one of these interviewees was in full-time education). Further details of the sample (that is, qualification, levels and sectors in which individuals had been employed) can be found in the Technical Report for the study (Bimrose, Barnes *et al.*, 2011).

Secondary data analysis used 32 existing interview transcripts from Norway. Data were collected from a variety of individuals to ensure a varied and interesting sample. The criteria for drawing the broad sample was the same as for the UK: individuals were contacted who had participated in a previous European Commission project, which had focused mainly upon highly skilled workers in health, engineering and ICT, and had given their individual consent to be interviewed (Brown *et al.*, 2010). The Norwegian sample for the survey research had in part initially been raised by contacting some large companies in target sectors (health service; oil and gas industry; public sector IT department; transportation), which explains the narrower distribution of current sectors in the Norwegian sample. The interviews took place in summer 2010, before this project was commissioned by the UK Commission. Researchers were selective in the sampling, but only to the extent of trying to ensure a balance of male and female participants across the age range in a variety of positions.

The research complements and extends an on-going international, twenty country study into the concept of career adaptability, which we argue is a key concept for understanding successful labour market transitions and accumulation of skills at the individual level. The psycho-social approach to career adaptability adopted by this on-going international study was also adopted and, therefore, has taken place against international scholarship into the nature, validity and applicability of the concept of career adaptability in supporting individual aspiration and transition.

The aim of the study was to assess and develop existing (national and international) knowledge about career adaptability, with particular emphasis on skills accumulation, in

order to provide a platform for the development and support of career adaptability in a UK context. The objectives linked to this aim were to:

- examine how career adaptability can be used to raise the aspirations of individuals at both higher and lower levels of skills;
- explore the potential of the concept of career adaptability to empower individuals to take positive decisions and actions regarding their skills development;
- consider whether career adaptability has a role in making access to training and learning more equitable;
- understand how career adaptability facilitates participation in skill development in a range of employment, education, training and other contexts; and
- investigate the influence of particular labour market conditions in supporting career adaptability (through an Anglo-Norwegian comparison).

This paper focuses upon the role of learning in developing adaptability at work and this has four dimensions:

- learning through challenging work (or mastering the practical, cognitive and communicative demands linked with particular work roles and work processes);
- updating a substantive knowledge base (or mastering a new additional substantive knowledge base);
- learning through (and beyond) interactions at work; and
- being self-directed and self-reflexive.

5. Learning to adapt through challenging work

A predictor of career adaptability is the propensity of the individual to learn and develop their competences (Creed *et al.*, 2009; Cronshaw and Jethmalani, 2005; Fugate *et al.*, 2004; O'Connell *et al.*, 2008). One of the most powerful ways individuals become engaged with learning and development pathways, which can involve up-skilling, re-skilling or perspective transformation is through engagement with challenging work (Brown, 2009). Challenging work can lead to adaptability in a number of ways, but what also comes across in the following quotations from the Norwegian participants in this study is their sense of engagement with that challenging work:

'My new job involved me in a steep learning curve, but when I master the job – it gives me confidence'.

'My new job was technologically challenging, there were exciting products to work with and I am very good at adapting to what is required. It is important to be open and flexible'.

'Learning while working in a project has its benefits; working together towards a concrete goal and with people and groups that are dynamic'.

'The feeling of being good at what you do, to master the job – to be able to work purposefully'.

'My learning while working has been enriched with having changed industries. It is healthy to switch jobs. I'm not afraid of changes and I look forward to changes.'

These positive attitudes towards learning through challenging work are mirrored in quotations from UK participants:

'Gained all my skills in the film industry on-the-job and through work experience, willing to ask how to do things when I do not know how'.

'Enjoy learning, think it is integral to working in IT, it is important to keep up-to-date – 3D graphics is a field which is moving fast'.

'Really excited about this opportunity and what it could lead to. I learnt most when doing challenging work'.

'I learned through challenging work; lots of interaction; learned about organisational cultures and management of change'.

'I learn on-the-job through project work'.

A woman from the UK sample exemplified how learning through challenging work can help build a platform from which it is possible to adapt to work in other fields. Her ten years working in safety critical environments (defence and engineering) produced a commitment to rigour and precision. Although this had clear benefits in how she approached her own work in future, she had to adapt to different attitudes and cultures in other environments, for example, when working in the policy arena 'I needed to negotiate the territory'. Additionally, learning from work could take unexpected turns. On several occasions, she was brought in to 'clear up a mess' caused by failure of colleagues to complete a project. On one occasion, the job involved considerable conflict resolution: 'I received no credit, but it was good experience'.

This example encapsulates a paradoxical aspect of adaptability. It is necessary to develop a particular way of thinking and practising associated with a discipline, occupation or knowledge base, but then the individual has to learn in what circumstances not to apply that particular approach when operating outside that area of expertise. The paradox is resolved because adaptable individuals have learned that mastery of a knowledge base (including appropriate ways of thinking and practising), which is itself a skill (or art), can be transferred.

Without the initial development of a rigorous base of particular ways of knowing, thinking and practising, individuals struggle to be effective when faced with complex problems at work. On the other hand, the adaptable individual knows that there are other situations at work, particularly when working in teams, where individuals have a wide mix of backgrounds or when dealing with clients, customers or patients, when it is inappropriate to approach an issue solely from a particular perspective learned in the past.

6. Learning to adapt through updating a substantive knowledge base

Being able to engage with challenging work often depends upon having already mastered a substantive knowledge base. Many research participants had obtained specialist professional qualifications at the start of their careers: for example, nurses, engineers and software consultants, while other graduates had studied a wide range of subjects. Other participants had completed an apprenticeship or other vocational training. Nearly all participants saw what they had learned in their initial studies as relevant in some way to their current jobs, even when they were working in a different occupational area from that for which they had studied or trained. Several participants pointed out that this was because they had learned particular ways of thinking and practising that stood them in good stead for the rest of their career. The actual knowledge base itself, however, often required considerable updating and many of our participants did this partly through work activities and partly through career development activities away from work.

The research participants undertook a wide range of courses in order to update their skills and knowledge, as the following quotations illustrate:

‘I enrolled for a part-time MSc – leaving full time employment to do this’.

‘Took formal qualifications in leadership and management; coaching supervision; and reflective practice’.

Completed an MSc Learning and Development: an Action Learning MSc – ‘on how we add value to the business – it provided practical help to strategy development’.

Completed a graduate IPM qualification and then two Masters – one in Industrial Relations and one in coaching.

Holds a degree and 3 Masters degrees. Two of these are science related and the third is an MBA. CPD along the way – ‘never stop learning!’

In most cases, formal training clearly added value to individuals’ career development, but one graduate took a Post Graduate Secretarial Course and regretted the training as ‘it took a long time for me to get out of secretarial work’. Fifteen years later she again had serious reservations about her choice of formally accredited learning – she had studied part-time for a Diploma in Management, but it was ‘disorganised and not very relevant’. So unusually, her formal learning was not seen as significant for career development, which had been principally driven by learning on-the-job and from colleagues and she saw herself as essentially self-taught.

Some participants completed integrated training, which comprised formal learning, learning on-the-job and self-directed learning. For example, one respondent completed a graduate traineeship in accounting, while another had left school at 16 and started as a craft engineering apprentice: formal teaching on technician courses was complemented by training in the workplace which was ‘very, very good’. He spent 6 months in every department in the company – from technical drawing to pattern making up to management. A ‘very thorough apprenticeship: sets you up!’

UK participants in a number of fields, such as health, IT and engineering, drew attention to the need to keep up-to-date with their field’s developing knowledge base. However, although they emphasised the value of taking a range of on-line courses, professional updating and similar for keeping their skills, knowledge and understanding current, many also opted to undertake more substantive programmes of learning and development. These included Masters degrees in computer generated imagery; control of infectious diseases; health care leadership and management; finance; MBA; psychology; educational management; occupational psychology; medical imaging science (ultrasound); and materials science (metallurgy). Such substantive provision was regularly viewed by participants as taking their learning and development to a new level and creating a platform for future career development, as the following quotes illustrate:

‘Enabled me to draw together learning, experiences and other qualifications. Really excited about this opportunity and what it could lead to.’

‘Gave me a good grounding in management and technical skills – the value of formal study is that it teaches you to write and make things explicit.’

‘Important process for intellectual development, more critical way of thinking and adds depth to your approach.’

A similar picture was portrayed by the Norwegian participants who highlighted the value of a variety of ways to update their learning, including: professional updating courses; intensive courses on technology at university; certification courses; security management; quality and safety courses; and special nurse organisation and management.

The rationale for technological updating was clear amongst participants: ‘the industry is changing, so it is important to have a common conceptual framework’; and ‘it helps me master the job and it gives me confidence’. Individuals were combining processes of sense-making, with re-contextualisation of the development of knowledge and understanding, after intensive periods of knowledge development and application.

Whilst the use of formal course provision for those participants working in technical positions was also linked to knowledge development through challenging work (associated with project work, introduction of new techniques, products, technology or processes), updating formal knowledge was always linked to a range of more informal ways of knowledge development and utilisation. The search for knowledge by individuals working in technical areas in ICT, health and engineering was often broad, going well beyond just the development of technical skills. The search could incorporate aspects of technical:

- know-how (how to apply technologies);
- know-what (where and when technologies and knowledge could be applied);
- know-who (including an active search for people who would be valuable as members of a personal network); and
- know-why (a fuller understanding of work processes including, in some cases in health, a deeper scientific understanding) (Lundvall, 2002).

Individuals also often needed the ability to utilise different types of distributed knowledge available in texts, technologies, artefacts or organisational routines (Dosi and Grazzi, 2010).

Some engagement with higher levels of knowledge and understanding relevant to work is clearly required to keep up-to-date with current ways of thinking and practising, but the level of engagement exhibited by many of the participants in both countries went beyond simple up-dating. Rather, it was driven by a desire for sense-making and developing their own identity at work. That is, these participants were seeing their professional identities and personal identities as being complementary and took care to emphasise, for example, that although taking a Master’s degree had value for their work, the primary driver was a

personal one – linked to their belief in the value of their own personal learning and development.

Updating a knowledge base through engagement with formal provision also needs to be complemented with other forms of learning and development. The transfer of appropriate knowledge between contexts (from learning to work) is not a straight forward process as it depends upon:

- understanding the new situation, a process that often depends on informal social learning;
- recognising which areas of knowledge are relevant to the new situation;
- focusing more precisely on what knowledge is needed for a particular decision or action;
- interpreting and/or transforming that knowledge to suit the new situation and context; and
- integrating the relevant aspects of knowledge prior to or during performance (Eraut, 2009).

However, once that knowledge updating and re-contextualisation is complete, individuals seem equipped to perform their existing role more effectively. It also seems to give them a platform to undertake further transitions. Thus, many participants who had achieved further technical qualifications, then went on to work in other areas: for example, management, teaching, consultancy or even more radical career changes.

The mechanism here may, therefore, be that the knowledge updating process (whether up-skilling or re-skilling) gets learners thinking both explicitly and implicitly about what constitutes effective performance in a changing context. The participants in the updating process seem to have learned or had reinforced how to apply their skills, knowledge and understanding in a range of contexts, which provides a foundation for or reinforcement to their ability to make successful transitions: they have become more adaptable. This process may also facilitate self-reflexiveness.

7. Learning to adapt through interactions at work

Working and learning are social activities, with work relationships, interactions and learning influencing current and future opportunities for the development of work-relevant skills, knowledge and understanding (Brown, 2009). It is an open question whether interactions at work do lead to substantive learning and development, but what is not in question is that rich

interactions do provide opportunities for substantive development. Many participants in both countries seemed well aware of the value of opportunities for 'learning by interacting'– they were seen as a key component of what they saw as learning-rich jobs, where you can learn from interacting with patients, colleagues, customers, clients etc..

'The job at the cancer centre - you have to deal with many situations spontaneously and with the patients' emotions. ...need a good working environment and support of colleagues. There are a lot of opportunities to learn...interdisciplinary learning...'

'We have a working environment where you learn from each other'.

'I've received training on the job. Now there are no courses, but I keep myself updated and I'm very independent. I must think quickly to find the solution when standing there with a customer'.

'I use all my skills and technical competence, but then I have to negotiate with clients all the time in order to get new work'.

'Client feedback on work motivates me for delivering better results. I do not need much support as a self-employed consultant, but my work does engage me with many different people'.

The cases above illustrate rich learning by interacting, which arise from work activities that are challenging in the demands they place upon individuals. However, the first case also shows how certain types of interactions, such as weekly case reviews (interdisciplinary learning), can be specifically set up to support collective learning and development. Indeed, participation in and learning through, interacting within communities and networks is a fundamental way for (re-)constructing a sense of the whole work process as well as a vehicle to develop expertise, including how to communicate effectively in different contexts. The interactions may be formalised, but they may also make use of more informal personal networks and relationships:

'I have always had people around me who have given me support and I have always had good role models around me and never felt that I didn't get support.'

'Informally, I learn a lot from colleagues. I ask several people about how they solve the problem – and then I find a solution that suits me best.'

'I keep asking questions to get information and I have found a network for women, which is most helpful.'

'My old job was very good in relation to getting contacts – provided me with business networking opportunities worldwide.'

‘I was supported by colleagues and by my old and new bosses. I was pushed a little into the change.’

For workers engaged in a range of networks, learning by interacting often helped with different aspects of their work-related learning and development, only some of which were explicitly linked to the organisation for which they worked. In contrast, where access to a broad set of interactions was restricted, opportunities for learning as part of their everyday work were consequently limited. It may be that it is social capital, developed through participation in work-related networks, which plays a role in helping individuals sustain their employability (Brown, 2005). Such social capital is also likely to contribute to individuals’ adaptability.

Some individuals were engaged in work that gave them opportunities for rich interactions across a range of contexts. This occurred because their work regularly took them to other workplaces, or they changed jobs or changed roles within an organisation, or they worked in a field with strong occupational networks. Personal networks were also utilised, drawing on support of people with whom they shared an educational background, or were former colleagues. These processes of learning through interaction and engagement with other people honed their skills in a number of respects, including the development of tacit skills associated with effective communication which could be applied in a range of contexts.

In such circumstances, there could be complementarity in the informal learning of technical, social and networking skills that were recognised as valuable for an individual’s skill development at work. The informal learning associated with personal networks was often important in many contexts over a career – from hearing about job opportunities and gaining initial entry to work through to many aspects of continuing career development, including choices about different ways of updating skills, knowledge and experience. The experiences of many of the participants seemed resonant with earlier research where progress in work was often supported by spontaneous forms of learning in which informal work-based learning and self-managed competence development converge and where both are often at least partly dependent upon the quality of support from personal networks (Brown, 2005).

It was also noticeable that two participants who, early in their career were engaged in work that did not depend on well-developed communication skills, nevertheless found ways to engage in intensive interactions at work through union activity. A UK graduate hospital porter, who had not been able to find other work because of high levels of unemployment, became a shop steward and developed into a highly skilled negotiator. After a year of these duties he decided to seek work in the human resources (HR) field – he talked it over with the

HR manager of the hospital, with whom he had developed a strong working relationship, who recommended that he apply for a job in a nearby hospital. A Norwegian aircraft mechanic found his union roles much more demanding and rewarding than his work: 'my union leader role (including being on the Board for 9 years) meant I developed as a person and learned to cope with many different situations'.

These examples of learning through rich interactions at work, but not directly through jobs, shows how the quality of interaction can be partly independent of the broader skill component of the job. This finding is exemplified in reverse by Eraut *et al.*, (2004), who highlighted how some highly qualified graduates were employed as professional engineers but, given a dearth of challenging projects, were given routine work. The lack of the promised professional interactions, in turn, compromised their opportunities for professional development.

Whilst interactions at work can be a driver for learning, they can also lead to a range of other opportunities to perform in new and challenging contexts. It is interesting that one participant, who worked largely alone as a technical writer, saw herself as (willingly) locked into her own field of expertise – the work itself presented new challenges, but the lack of meaningful interaction with others meant that she was not becoming more adaptable. So learning through meaningful interactions at work can be a powerful driver of adaptability, with the absence of such interactions an inhibitor of adaptive competence.

There appears to be one particular type of interaction at work which stands out as helping in the development of adaptability and that is supporting the learning of others. Time and again, individuals identified certain individuals or groups as being particularly helpful in their learning and development. By the same token, some participants highlighted how much they learned themselves or gained in other respects from supporting the learning of others. Some had responsibility for learning and development of others on a formal basis as coach, mentor, tutor or manager, whereas others performed this role as part of their duties within a team or project: 'In our project teams there are lots of interdisciplinary exchanges and there is a lot of learning going on. For instance, an economist will learn about operations through participation in projects.'

In knowledge-intensive work and settings involving complex teamwork, many organisations explicitly use a developmental view of expertise that goes well beyond expecting technical proficiency and a commitment to continuing improvement. These organisations pay particular attention to ensuring that their teams possess people able to support the learning of others (Brown, 2009). Organisations could create mechanisms to enhance peer support,

mentoring and knowledge sharing in order to develop a culture of support for learning and development (Bryant and Terborg, 2008). One consequence of this seems to be that those with responsibility for supporting the learning and development of others become more reflexive of their own learning and development and this strengthens their capability to apply their own skills, knowledge and understanding in a range of contexts.

Overall, interactions at work can act as a driver of the development of adaptability in four ways. First, there is development arising from work activities which are challenging in the demands they place upon individuals: for example, in activities in counselling, negotiation or complex project management settings, interactions can be particularly demanding and individuals learn to adapt through processes of experience, reflection and learning. Second, there are certain types of interactions based on activities such as weekly case reviews, mentoring and peer support which are expressly concerned with helping people think about learning, development and effective performance by reflecting upon their experience.

Third, interactions associated with participation in broader communities and networks can help individuals make sense of work processes in a wider context, thereby helping individuals understand where they are and where they might be within occupational, organisational and broader communities – this can then be a factor in facilitating successful career transitions. Fourth, interactions based around supporting the learning and development of others at work can help individuals to become more reflexive of their own learning and development and thereby strengthen their capability to apply their own skills, knowledge and understanding in a range of contexts as a basis of adaptability.

8. Learning to adapt through self-directed learning and self-reflexiveness

As argued above, learning to adapt is a social process, facilitated by interaction, but it is also necessarily an individual process. Even engagement with challenging work and involvement in rich interactions does not necessarily lead to adaptability. Some individuals use a very limited repertoire of responses to such challenges, which mean they may actually become less, rather than more, adaptable. It has become clear from this study that the development of adaptability has to be self-directed. Learning and development at work depends partly on whether work offers an expansive learning environment and employers can play an enabling role in this respect (Fuller and Unwin, 2006; Felstead *et al.*, 2011). However, it is also dependent upon individual actions. People vary in their self-awareness about their goals, aspirations, motivation, personality, inter-personal skills and resilience. They also differ in their appreciation of learning opportunities, contextual understanding and their ability to develop relationships and networks to support their learning and development. Capabilities for critical analysis, critical reflection, visualisation and organisation and the ability to switch between context and generalisation, all help individuals to make the most of their learning opportunities (Brown, 2009). In this respect, career adaptability can empower individuals to take positive decisions and actions regarding their skills development.

At work, being self-directed in terms of taking advantage of learning opportunities is helpful for individual development (Bimrose and Brown, 2010). Eraut (2009) argues it can involve willingness to engage in a wide range of activities such as asking questions; getting information; finding key people to support you; listening and observing; learning from mistakes; giving and receiving feedback; trying things out; independent study; and working for a qualification. There were many examples of all behaviours in the data from the participants in both countries and it is noteworthy that besides identifying themselves as self-directed, participants were also able to articulate just such generic strategies that helped them build their careers and make successful transitions:

‘I am very good in adapting to what is required! You need to be open and flexible. Try new things. Just do it.’

‘There have been periods of a lot of learning, a lot of frustration and thinking of how to solve the tasks, but eventually, after solving them I have taken new steps to find new challenges and so on.’

‘I have experienced different cultures. In a small company decisions are taken very quickly. Everybody can see who takes the decision ... In a large company: decisions are usually taken far from the workers ... cannot see who... and takes a lot longer.’

‘My professional expertise is mostly gained through experience. I lay my reputation on the line with my problem-solving. You need to think positively; do not let daily frustrations affect you; be realistic; get feedback. It costs to be in charge...’

‘I often learn in retrospect, how I did it in the job. You often get feedback afterwards.’

One special aspect of being self-directed, illustrated by the quotes above, relates to being self-reflexive, able to identify your current skill set and how this might be enhanced and extended. Those who made successful transitions all seemed to be self-directed in either or both their learning and development and their career more generally. The link between being self-directed in your own learning and development and making successful transitions is transparent: if you can learn to adapt and continue to develop in your current job, even in less than ideal circumstances, then this provides a basis for making successful transitions in future. Several participants also pointed to the psychological dimension of how being self-directed and successful in making a major transition reinforced your confidence that you would be able to do this again in future, if required.

Those individuals who see that their skills can be transferred to other contexts have significant advantages in changing career direction over those who define themselves almost exclusively by their occupational and organisational attachments (Bimrose *et al.*, 2008). This advantage stems from the former having a dynamic sense of themselves as being able to navigate their own route through the labour market, whereas the latter are dependent upon the pathways linked to a particular organisation or occupation.

One final aspect of being self-directed surfaced in many of our participants’ replies – people can learn from their lives through the stories they tell about them. Many of our participants recounted powerful narratives of where they had been, where they were and where they might be going. They were in charge of their own stories and such a perspective itself is an important component of adaptability.

Being self-reflexive and self-directed in relation to learning and development in general is useful, but a particular focus upon career development is also important. In this regard, awareness of career orientation and transitioning styles are also important for understanding the ways in which individuals navigate change (Bimrose, *et al.*, 2008).

9. Policy implications

Drawing upon the key findings of the research, the potential relationship to UK policy developments are considered within the context of social mobility, an all-age careers service, employability and skills supply. It is argued that there is a new requirement to move beyond traditional and static concept of 'employability' so that individuals are better equipped to be more resilient and to manage risk and uncertainty in fast changing and unpredictable education and labour markets. One crucial element in understanding skills supply (the accumulation of skills) and successful labour market transitions is through a closer examination of the concept of 'career adaptability'. The research identified six key areas for action in building a more robust policy framework within which career adaptability could play a key role.

First, the design and development of careers support services, both within and outside of the workplace, must take full account of individuals' 'state of readiness' to manage and implement effective decision-making in relation to learning and work. This means finding new ways of personalising services for the individual and developing innovative strategies so that careers professionals, welfare to work providers, teachers and employers can make more effective use of 'career stories and trajectories' within education and employment settings. The working relationship between careers professionals and human resource professionals merits more detailed attention given this is currently under-researched within public, private and voluntary/community sector contexts and these contrasting, yet complementary professional roles, bridge the education and employment divide.

Second, there is a new requirement to move beyond traditional and static concepts of 'employability' so that individuals are better equipped to be more resilient and to manage risk and uncertainty in fast changing education and labour markets. A critical issue is how best individuals can learn to develop and apply career adaptive competencies most effectively. Learners, teachers, lecturers, trainers, employers (and others involved in the education and employment sectors) all have a very wide range of perspectives, though need to understand that, given demographic trends, it is crucial that young people and adults at all stages of their career progression are 'ready' to continue their development in increasingly demanding employment, education or training contexts.

Third, the use of the term 'opportunity structures' conveys the existing tension between the need for openness and flexibility on the one hand and structured pathways on the other. Finding an accommodation which works well for most members of a society by providing opportunities for those who do not fit initially, should be the goal of a Continuing Vocational

Training (CVT) policy, informed by concerns for individual career development. The principles of flexicurity can be helpful in this respect, but extending the breadth and quality of the opportunity structures should be a primary goal of policy in this area.

Fourth, the focus on formal qualifications as a proxy for learning and development does not do justice to the range, depth and variety of different forms of learning-while-working that contributes to the acquisition of career adaptive competencies. The latter should be promoted and the most appropriate timing for validation of different forms of learning and the use of qualifications in this process be considered.

Fifth, existing progression measures that capture individuals' learning and work destinations must operate beyond a one-off 'snapshot approach' in order to build and extend the body of knowledge of individuals' career trajectories and career adaptability competencies. In this context, there is scope to further review how government plans to incorporate new 'destination measures' will assess impact and individuals' progression in learning and work (BIS, 2011). By doing so, greater emphasis on capturing career adaptive competencies and the lessons learned can be disseminated more effectively within and across professional networks. Also, greater use can be made of information communications technologies (ICT) developments as a potentially low cost tool for capturing data and tracking individuals' career trajectories over time. However, both of these have staff training and workforce development implications.

Sixth, exploring a 'career clusters' approach to supporting individual progression at a local level, as recently outlined by the UK Commission for Employment and Skills (UKCES, 2011), could be extended further to include the use of career adaptive competencies designed to enhance individuals' understanding of the structure of jobs, job requirements and advancement pathways. There is scope to consider how this might link and further enhance relevant government initiatives such as 'Investors in People', 'Lifelong Learning Accounts' and the emerging new 'National Careers Service' in England.

10. Implications for practice

The findings from this study indicate there are a number of implications for professionals and allied workers who have responsibility for supporting young people and adults' career adaptive needs. First, greater investment is required in CPD for careers professionals, to widen strategies for helping to motivate and encourage individuals to learn using careers narratives and the application of career adaptability competencies. Theory, research and practice in this area should be embedded within both accredited and non-accredited learning

programmes. Second, new opportunities for joint professional training and development between careers professionals, careers educators and other allied workers including HR, Job Centre Plus workers and the wider welfare to work provider base are needed. This could potentially yield closer co-operation, collaboration and communication on what works best with clients, learning more about career trajectories and outcomes in fast changing education and labour markets, as well as improvement in service design and delivery.

Third, a market in careers work has been stimulated by government in England, which is likely to result in an increase in more sole traders, mutuals and new consortia formations. There is significant scope to make openly available research findings on career adaptability linked to skills supply and to build upon this by fostering innovative approaches to build career narratives that can be shared as part of an on-going learning process with young people and adults. Fourth, use of ICT can make career adaptive competencies and how these translate into everyday lives more visible. For example, the link between the individual and the world of work can be evaluated to help determine the level of engagement or disengagement so that career adaptive competencies can be filtered into the process of online and offline learning. To support this, practitioner competencies in the use of ICT and Labour Market Information needs to be enhanced.

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