Apprenticeship for 'Liquid Life': Learning in contingent work conditions for contingent employment

Abstract

Taking the distinction between the Institution of Apprenticeship, that is, the social partnership arrangements which underpin its organisation, and Apprenticeship as a Social Model of Learning, in other words, he configuration of pedagogic and occupational etc. dimensions which constitute the model, as its starting point the paper: (i) argues the emergence of de-centred, distributed and discontinuous conditions associated with project-work present challenges for extant ideas about apprenticeship as a social model of learning; (ii) explores this claim in relation to Fuller and Unwin's four inter-connected dimensions of apprenticeship as a social model of learning by considering a case study of apprenticeship designed to prepare apprentices to work in the above conditions; (iii) relates issues arising from the case study to research on project work from the fields of Organisational and Cultural Studies; and (iv) based on this evidence base introduces a typology of 'Apprenticeship for Liquid Life'.

Key words – apprenticeship, de-centred, discontinuous, distributed working and learning, vocational practice, social capital, recontextualisation, liquid life

Introduction

Over the last two decades, it has been widely noted that there has been a shift in advanced industrial economies away from organising work in accordance with the principles of functional differentiation (i.e. occupational and organisational specialisation) and full employment, towards project-work (i.e. interprofessional teams) and freelance employment (see *inter alia*. Boltanski and Chiapello, 1995; Moulier Boutang, 2010; Negri and Hardt, 2000; Thrift, 2005). Some authors stress that this development is primarily associated with specific sectors such as the Creative industries (Grabher, 2004) or professional services, for example, engineering or management consultancy (Barley and Kundra, 2004), while others maintain that project-work is the organising principle that will increasingly underpin all forms of work (Heckscher and Adler, 2006; Moullier Boutang, 2010), while some extend the argument further and contend that work and life within cities is increasingly organised around a mix of inter-connected personal and work-related projects (Boltanski and Chiapello, 2005). Irrespective as to which perspective is adopted, there is strong consensus that work, in sectors where project teams are the norm, is characterised by contingent, that is, de-centred, distributed and discontinuous conditions, rather than the centred, geographically located and stable conditions which characterised much work in the second half of the last century.

The literature on changes in the organisation of work cited above comes from fields such as Social Theory, Sociology of Work and Economic Geography and, as a consequence, is not concerned with the implications of the shift to project teams and freelance employment for vocational or professional learning. This paper however argues that the emergence of de-centred, distributed and discontinuous work conditions introduces, in turn, new conditions for learning at work and these have implications for extant ideas about learning through work in the fields of Professional and Vocational Learning. This argument has some affinities with Engström's (2008) argument about "knotworking" since both are concerned with changes in the division of labour resulting in an increase in interprofessional working and learning. The paper differs from Engström's work, however, in two respects: it is concerned with first, how people learn to create conditions to facilitate learning in project teams rather than establishing 'laboratories' to study researcher-facilitated discussions about how to work together interprofessionally and second, freelance work and the generation of the social capital to maintain that form of employment rather than the temporary knots that arise between people who have permanent employment.

The paper explores the implications of its argument that the emergence of de-centred, distributed and discontinuous work conditions have introduced new conditions for learning at work, through reference to apprenticeship in contingent work contexts. To do so, the paper adopts a dual conceptual perspective. It uses Deuze's (2007) development of Bauman's (2005) concept of "Liquid Life" to frame metaphorically the discussion of apprentices learning to work as freelancers in

contingent, that is, de-centred, distributed and discontinuous work conditions. Where Bauman viewed the emergence of these conditions negatively because he saw them as undermining the forms of social and workplace community bonds which sustained cohesion and identity, Deuze highlighted the ways in which networks have replaced the aforementioned bonds and offer new forms of support for people to thrive in contingent work conditions. The paper also uses the idea of apprenticeship as a social model of learning to explore how apprentices develop occupational knowledge and skill in contingent work conditions.

The claim that apprenticeship constitutes a social model of learning was first advanced by Lave and Wenger (1991) in their book *Situated Learning* where they introduced a conceptualisation of learning as a social process and defined learning as "changing participation in changing practice in communities of practice" (ibid., p. iv), and pursued the implications of this conceptualisation through a discussion of empirical studies of apprenticeship in craft settings (e.g. tailors in Liberia) and in modern non-formal settings (e.g. Alcoholics Anonymous in the USA). The cornerstone of their argument was that the emphasis on education in advanced industrial societies, or expressed in their terms "teaching curricula" (ibid., p. 97), had deflected researchers' attention away from the merits of workplace and occupational enculturation via a "learning curriculum" (i.e. apprenticeship). To counter this trend, Lave and Wenger (1991) argued that: (i) their notion of participation enabled them to reveal the social processes associated historically and culturally with apprenticeship that have always enabled it to constitute a model for how newcomers (i.e. apprentices) to occupational communities learn the expertise and identity associated with a community of practice as they progressed from being novices to becoming experts; and (ii) ways of learning through apprenticeship always reflected the organisation of work and how this, in turn, influences the deployment of expertise within a community of practice.

Among the international apprenticeship research community, the most comprehensive engagement and development of Lave and Wenger's original argument about apprenticeship as a social model of learning has been undertaken by Fuller and Unwin (2004, 2010, 2011). Over a number of years, they have elaborated and extended Lave and Wenger's original cultural anthropological concern for the common social processes and arrangements – participation, community of practice, learning and teaching curricula – which facilitated learning in all forms of apprenticeship in the following ways. Fuller and Unwin (2010, p. 408) have argued that these social processes and arrangements are, in advanced industrial societies, located in a broader context; a context defined as consisting of the following four inter-connected dimensions:

(1) *Pedagogical* – workplace supervisors' and vocational teachers' deployment of varying forms of teaching, modelling and feedback, supplemented by interactions in workplaces with more experienced others, for example, recent graduates from apprenticeship, which allows current apprentices to

develop vocational knowledge, practice and expertise.

(2) *Occupational* – apprentices' initiation into a specific or broader occupational community, defined by the solidarity formed around shared knowledge, skills, values, customs and habits as well as, often formal certification.

(3) *Locational* – employers' relationship with the communities in which they are located, thereby enabling apprentices to become part of the (learning) life of the wider community.

(4) *Social* – the extent to which the perceived success of reputation of the employer influences the community's perception of apprenticeship as an important element of its economic and social relations. In addition, how the local community sees apprenticeships as an important element in its repertoire of mechanisms for facilitating the transition of young people from economic dependence to independence and from childhood to adulthood.

The crux of Fuller and Unwin's argument was, therefore, that in advanced industrial societies the above four inter-connected dimensions constitute the basis for apprenticeship as a model of learning and manifest themselves in accordance with how: (a) the Sate or social partners determine the national policy for apprenticeship; and (b) companies choose to design apprenticeship to produce 'expansive' and 'restrictive' outcomes for themselves and their apprentices (see Fuller and Unwin 2004, 2010, and 2012 for an overview of this development and Billett (2016 for an alternative perspective on apprenticeship as a model of learning and education). Hence, their conclusion emphasises that apprenticeship is a social model of learning which "evolves and adapts" to the changing economic, political and social contexts it inhabits (ibid., 2011).

The arguments in this paper draw upon the lineage from Lave and Wenger to Fuller and Unwin, described above, to initially frame its conceptual perspective on apprenticeship as a social model of learning. When the paper introduces the case study of apprenticeship in Media Production it supplements the above conceptual frameworks with a number of additional concepts, for example, "object of activity", and "recontextualisation" (*name deleted to maintain the integrity of the review process*) to illustrate what is involved in learning in contingent work conditions. That process of supplementation is explained fully later.

Although this paper builds upon Lave and Wenger and Fuller and Unwin to frame its conceptual perspective on apprenticeship as a social model of learning, we question whether Fuller and Unwin's claim that their four inter-connected dimensions of apprenticeship will always underpin the different economic, political, etc., traditions within different countries is applicable in relation to contingent work conditions. We contend that the de-centred, distributed and discontinuous work conditions associated with freelance work may simultaneously intensify and diminish the role of the above inter-connected dimensions. We acknowledged that this development is consistent with the broad thrust of Fuller and Unwin's argument that apprenticeship is a social model of learning that always adapts and evolves in response to different

economic, political and social conditions, though not necessarily with their conclusion that all four elements remain equally important. Hence we argue that the emergence of contingent work conditions may necessitate a re-thinking of apprenticeship as a social model of learning in order to take explicit account of the intensification and diminution of Fuller and Unwin's four inter-connected dimensions of apprenticeship.

The paper makes this argument in the following way. First, it exemplifies the growing international prevalence of contingent work conditions through reference to England's Media Production industry. Second, the paper presents a case study of apprenticeship drawn from previous research (*name deleted to maintain the integrity of the review process*) that had been specifically designed to support apprentices to learn to be freelance workers in de-centred, distributed and discontinuous work conditions. The paper then appraises Fuller and Unwin's four inter-connected dimensions of apprenticeship in relation to a number of issues arising from the case study, concluding that the emergence of contingent work and employment appears to be significantly altering the balance between, and outcomes from, Fuller and Unwin's four interconnected elements. Based on issues arising in this discussion, the paper concludes by: (i) formulating a typology of learning through apprenticeship for contingent work and contingent employment – liquid life and (ii) suggesting how the typology could offer research communities, who are interested in how newcomers learn in project-work, a way to investigate learning in such contexts.

The perspective of apprenticeship as a social model of learning expounded in this paper is therefore, firstly, different from another well-established perspective on apprenticeship, which has been referred to as the "Institution of Apprenticeship" (Guile and Young, 1999). The primary focus from that perspective is the social partnership arrangements which facilitate the design and delivery of national programmes that are defined as 'apprenticeships' in different industries, in different countries and in conjunction with different national education and training systems (see *inter alia*. Aarkrog, 2012; Ainley and Rainbird, 1999; Brockmann, 2012; Deissinger, 2004; Deitmer and Hauschildt, 2015; Rauner and Smith, 2010). Secondly, we differentiate from understandings that focus on aspects of the social basis of learning through apprenticeship, for example, Lehmann (2012), Neilsen, (2006), and Werthern and Berchman (2010) or who, inspired, by Lave and Wenger have develop ideas about learning through participating in social practice either in general (Kvale, 2009) or in workplaces (Billett, 2001).

Creative Industries, Liquid Life and Apprenticeship

Media Production in England: Shift to contingent work and employment

It is widely recognised that the broad international trend towards project-work, which was described at the start of the paper, has been most evident in the Creative Industries. The literature on those industries has recognised the impact of this trend

in the UK (McRobbie, 2014), Europe (Lazzeretti, 2014) and North America (Caves, 2000; Florida, 2000). Specifically, the shift away from organising work in accordance with the principles of functional differentiation and full employment and towards project-work and freelance employment has, as Dueze (2007, p. 189) concludes, transformed employment relations: from the structured and clearly bounded state of European public broadcasters' internal labour markets into boundary-less external labour markets, where a growing group of skilled professionals and experts flexibly supplies an industry of a few big companies and many small producers.

Setting the context for the case study presented in this paper, there are specific reasons why this shift in the organisation of work happened in the Creative Industries in England, which we summarise briefly below in relation to Media Production – that is, work in television and radio.

Up until the early 1980s, the broadcast industry in England consisted of the duopoly represented by the television license-funded British Broadcasting Company (BBC) and the single commercial broadcasting network Independent Television (ITV). This duopoly operated in a relatively benign post-war environment, rooted in broad political consensus about the value of the public service role of television and radio (Crisell, 2002). The election of Margaret Thatcher's Conservative government in 1979, however, had a profound effect on the BBC and ITV's operating environment because the government was ideologically opposed to the concept of a subsidised public sector, underpinned by a public service ethos (Milne, 1988). The Thatcher government therefore initiated a number of activities to break down the duopoly between the BBC and ITV. The government: (i) authorised the setting-up of Channel 4 in 1982, stipulating in Channel 4's license to broadcast that it had to be a 'publisher-broadcaster', in other words, commission or 'buy' all of its programming from companies independent of itself. This development meant that production companies could now exist independently of television companies and 'sell' their programmes to the highest bidder (Crisell, 2002); and (ii) introduced a new Broadcasting Act (1990) that, amongst other measures, imposed a quota of 25% of total output could be produced in-house by the BBC and ITV, and made this a statutory requirement for any other television station that was launched after 1990. This development was further reinforced within the BBC when the then Director General introduced the principle of 'producer choice' (i.e. allowed producers the autonomy to decide who they commissioned to produce programmes) and, in the process, forced the in-house production teams to compete with independent producers on an 'equal footing', which resulted in the BBC now consisting of 481 business units or cost centres with their own budgets (Born, 2005, pp. 107-108).

One effect of the emergence of independent production companies was the gradual drift away from permanent employment in the BBC, and ultimately ITV, and the enshrinement of the 'contract structure' (Caves, 2000) of the feature film in Media Production. In other words, Media Production companies used the principle of project teams to organise work, with the result that all staff (directors, producers,

and all professional and technical staff) were contracted according to the mix of expertise required for specific programmes. The pace of this development in the late 1980s and early 1990s can be gauged, as Ursell (2000, p. 807) citing statistics obtained from Skillet (1997) observed, in that between 1987 and 1997, ITV shed 44% and BBC 33% of their respective workforces and, as a corollary, there was a rise in freelance work in the broadcast industry from 39% to 60%.

This shift from permanent employment (internal labour markets) with its associated financial security to freelance work (external labour markets) and its associated financial insecurity has positioned professionals in Media Production to live a liquid life (Deuze 2007) – in other words, they must navigate the tensions between their transactional freedom to use their membership in networks to continually search for, and then move to, the next contract for their services, and the financial uncertainty associated with the exercise of such freedom. The emergence of liquid life in Media Production has therefore contributed to the creation of a new version of what Piore and Sable (1988, p. 251) referred to as, a "core" and "peripheral" workforce. For them, the 'core' workforce is characterised by highly qualified personnel without whom companies could not operate effectively, while the 'peripheral' workforce is made up of a less highly qualified workforce that companies deem replaceable or substitutable. In contrast, the independent broadcast sector in the UK is characterised by a core workforce who issue and manage contracts for the production of new programmes, and a peripheral 'creative and technical' workforce. This organisation of work takes, as Deuze (2007) observed, the form of:

> …loose fitting structures of individuals, teams and companies that are temporarily connected through a specific motion picture, television pilot or season. Such structures tend to be capable of flexible, experimental and customized production, as well as being able adapt to changing circumstances (p. 192).

The outcome is the continual generation of a 'roller coaster atmosphere' (Langham 1994, p. 6), where production staff, that is, actors, directors, producers, writers, and all kinds of technical staffers, on the one hand, coalesce into semi-permanent work groups who try to move from project to project as a ready-made team and, on the other hand, endeavour to accumulate social capital, through participation in networks to extend the range of contracts that could be offered to them.

Access to employment in Media Production

Views vary considerably as to whether the pattern of work described above facilitates creativity by offering transactional freedom (Florida, 2000) for people to secure and/or work on contracts of their own choice, or if this fosters *precarité* by denying people the financial security and social solidarity that have been noted as desirable features of employment (Hesmondhalgh and Baker, 2011; McRobbie, 2014). Nevertheless, irrespective of which view is adopted, the increasing use of projects to organise work of work in Media Production in England has had similar

implications for newcomers from the 1990s onwards. The most common access route has been a learning-by-doing process based on securing a position as a 'runner'[1], that is, by fulfilling a short-term, relatively lowly paid or 'work-for-free' contract. Newcomers who opted for this course of action tended, however, to be graduates. This is partly due to the growth of media-related degrees in UK higher education in this period (Universities UK, 2005). Though the rising interest amongst students who have studied other degrees to enter the Media Industry has also provided a continual flow of people who want to enter media production (DCMS, 2001). These graduates have also sought work placements in the industry to develop the forms vocational practice and social capital to secure starting positions as a runner (McRobbie, 2015).

Graduate-entry flourished in Media Production in England because there had not been an apprenticeship scheme in that industry, or the Creative sector between the late-1980s and mid-2000s. Firstly, the global economic crisis of the mid-1970s, in conjunction with England's longstanding culture of voluntarism as regards to employer involvement with training, resulted in considerable pressure from employers, through the Conservative and Labour governments of the 1970s, to abandon the then national system for subsidising training (Brockmann, Clarke and Winch, 2010). Without this mechanism, apprenticeship gradually unravelled in most industries in the UK. Secondly, the strong internal labour markets that existed in the BBC and ITV in the 1960s and 1970s meant that apprentices tended to remain with the company where they had undertaken their training, or chose a freelance career path to enter the UK film industry (Briggs, 1985). Television companies were therefore well staffed with technical expertise and were not overly concerned about protecting their apprenticeship programmes.

Apprenticeships began to resurrect in other industries in England in the early 1990s after the then Conservative government introduced a new apprenticeship framework in an attempt to develop intermediate skills in the UK economy (Clark, 1999). This process of resurrection occurred very slowly in Media Production and the Creative sector more generally because, as has been noted:

> …there are few Creative Media employers who have the ability to "employ" an apprentice for a 15/18/24 month period as is the current norm in Government funded apprenticeships (Skillset, 2010, p. 8).

This was the case for two reasons. First, the freelance contract structure of employment in the Creative sector in general, and Media Production in particular, was at odds with the UK's Advance Apprenticeship Framework' stipulation that

[1] In the freelance world of media production, the term runner denotes the starting position in a project team. Put simply, it means receiving a stipendiary payment or working for free and being asked to assist with all aspects of the work being undertaken by the project team. Although positions as runners are advertised via media websites, the process of selection is heavily dependent on recommendations from people who have worked with potential runners and the potential runners' own entrepreneurial/ self-promotional activity.

apprentices should be offered contracts for permanent employment because this would mean companies were treating apprentices differently from other staff. Second, the financial structure of small and medium- sized enterprises (SMEs) meant they would not necessarily have funds to cover the cost of employing an apprentice and, as a result, they refrained from engaging with the newly launched apprenticeship programme.

Case study of apprenticeship in Media Production

Background to the case study

In light of the circumstances described above, there was a determined effort in the late-2000s led by an organisation – Vision+Media – that had a long track-record of offering training to the media production industry in the North West of England to create an access route into Media Production for young people who held Intermediate Level (i.e. below degree) qualifications. Following discussions between representatives of Vision+Media, a number of media production companies (BBC, Granada, Shine, etc.) in the North West of England, and organisations who, at the time, were responsible for skill planning and vocational qualifications at a national and local level, plus a local college of Further Education, it was agreed to run a small-scale pilot apprenticeship. For a full account of the genesis and outcomes of the apprenticeship, see *name deleted to maintain the integrity of the review process.*

The pilot, which was coordinated by Vision+Media on behalf of the above stakeholders had two aims: to diversify entry routes into Media Production; and to assist apprentices in developing the forms of vocational practice (i.e. knowledge, skill and judgement) and social capital (i.e. access to media networks) necessary to a "Liquid Life" as freelancers in Media Production. To achieve this goal, Vision + Media negotiated with the then local Skills Council (the body charged with overseeing apprenticeships in the North West) that apprentices were only offered contracts for the duration of apprenticeships. The pilot apprenticeship, which started in 2009 had, in common with other apprenticeships designed in accordance with the Advanced Apprenticeship Framework, a workplace and educational component. The former, which was centred around a ten-week programme production cycle, is described and analysed in the next section. The educational component, which consisted of a Level 3 Diploma in Media Techniques and accreditation in relation to a National Vocational Qualification (Level Three) in Media Production, was designed to dovetail the workplace component of the apprenticeship in the following way. The teaching sessions for the taught component were situated between the work placements which were organised as four ten-week blocks. This pattern of delivery allowed college staff to monitor the apprentices' development and to reflect on how to modify the ways in which lectures, group work and individual assignments could be used to respond to the apprentices' varying needs in the next teaching block. The assessor for National Vocational Qualifications: (a) visited every apprentice, at least once while they were undertaking each of their placements, and assisted them in

gathering the written and/or visual evidence needed to confirm that they had met the required standard for different NVQ units; and (b) supported the apprentice's every week in college to reflect on the knowledge, skill and judgement which they gradually developed as they undertook a multitude of transitions between education and work, and between different work contexts. This form of support offered the apprentices an opportunity to consolidate their growing understanding of the knowledge and skill required to work in different areas of Media Production and, as a result, negotiate work placements with their line managers with greater confidence.

To ensure that the apprenticeship attracted and recruited those who were best suited to work as freelancers in the broadcast industry, as well as to address the wider social inclusion aims of the apprenticeship, the stakeholders commissioned Connexions (North West) – the regional careers company – to assist them in advertising and recruiting young people (*name deleted to maintain the integrity of the review process*). Among the strategies employed was that potential recruits had to 'pitch' an idea for a TV programme to a recruitment panel consisting of representatives from education and industry. These activities, which reflected working practices in the industry, offered applicants an opportunity to demonstrate their capacity to exercise agency, to take on a leadership role and also to work collaboratively and imaginatively. Final decisions about acceptances into the apprenticeships were made by the panel.

Conceptual framework: Learning through apprenticeship for "Liquid Life"

The overarching conceptual framework for the case study – apprenticeship as a social model of learning – was presented in this paper's introduction. In accordance with this perspective, we view apprenticeship as a model of learning which will evolve and adapt to the different economic, political and social contexts it inhabits, and learning as a process of participation in occupational practice. We supplement this conceptual framework with a number of additional concepts from Socio-cultural and Activity Theory to take account of: (i) the context of the apprentices' learning – project teams, which consists of an eclectic and constantly changing mix of more and less experienced managerial and technical personnel; and (ii) the process of learning and the development of expertise and identity (*name deleted to maintain the integrity of the review process*). The former was explored through the "shared object of activity" (Engeström, 1999) concept to analyse the interplay between purpose(s) that guided stakeholders' establishment of, and apprentices' participation in, apprenticeships. The latter was explored through the use of: (a) Holland et al.'s (1988) concept of "figured worlds" to illustrate the ways in which apprentices were continually positioned and repositioned in de-centred, distributed and discontinuous work conditions to work with the same and different people in order to develop their chosen vocational identity and expertise; and (b) *name deleted to maintain the integrity of the review process*'s "recontextualisation" to illustrate the ways in which

apprentices' developed the judgement to use extant ideas and the tools they had acquired, along with suggestions from other team members, so they could collaboratively resolve tasks-in-hand.

Apprentices' learning: Processes and outcomes

The object of activity of the apprenticeship was to prepare apprentices for a liquid life as freelancers in Media Production. This principle was enshrined in the apprenticeship by Vision+Media in two ways (*name deleted to maintain the integrity of the review process*): the first was by accepting the organisation of work, in this case, ten-week programme production cycles, as the building blocks for the apprenticeship and negotiating with Media Production companies to provide apprentices with opportunities to identify and refine their preferred vocational specialism, for example, to gain work experience in production offices, on 'set' (i.e. studios), 'on site' (i.e. external locations), in post-production facility houses (i.e. visual and sound editing), etc., which were all in different geographical locations; and secondly, by appointing a placement officer to discuss with apprentices, their emerging interests in the various aspects of Media Production as well as possible placement opportunities that might be available. Following these conversations, the placement officer liaised with the media companies participating in the apprenticeships to: (i) match the apprentices' request for a particular type of placement to the company which, at the time of the placement, was best able to accommodate the apprentices' request; (ii) support the apprentices' learning in the workplace by ensuring the project team leader acted and accepted responsibility for overseeing apprentices' development and allocated them a mentor while they were undertaking their placement; and (iii) act as a first port-of-call in case of any problems. The apprentices engaged with the object of activity initially when they exercised their agency to apply for an apprenticeship that would prepare them for a liquid life and then, subsequently, after they had been recruited, in the following two ways: the first was by building a relationship with the placement officer and making suggestions and receiving counter-suggestions about possible placements where they could develop vocational practice in their preferred Media Production niche, and the second was by using the networks they were developing to identify alternative or future placements.

The distinctive feature of the work placements was that apprentices joined a project team. These teams consisted of a range of specialists, and work practices were characterised by a transgressive deployment of knowledge, skill and judgement. In other words, members of project teams used their forms of aesthetic, technical and managerial knowing in varying combinations and with varying groups to facilitate different aspects of a given production process (*name deleted to maintain the integrity of the review process*). Apprentices were positioned therefore to firstly, join de-centred and distributed project teams consisting of figured worlds that sometimes involved people from the same specialism and on occasion, people from

a mix of specialisms. This difference reflected the extent to which specialists were continually (camera, lighting, sound, etc.) or discontinuously (costumes, make-up, etc.) positioned to work with other specialists. Irrespective of which pattern of figured worlds prevailed, responsibility for achieving the overarching goal of production was shared between all members of a team. Secondly, apprentices' were immersed immediately in a project 'work flow' where tasks and roles were allocated, based on what arose from the dynamic nature of the given production schedule.

One consequence of the above division of labour is that apprentices were expected to identify from within the flux of the figured worlds they entered firstly, who was leading on a particular stage of a project, irrespective as to whether that person came from their chosen occupational specialism, and how to use the directions offered implicitly or explicitly by that person. This transpired in various ways. One was, to participate in aspects of work practice to learn the knowledge and to develop the skills that underpinned the complex and interrelated actions apprentices were undertaking in production offices, on site and at the shoot or in post-production work, practically. Another was to develop their judgement about how to accomplish those actions swiftly and effectively by asking for advice and/or acting independently – for example, who in the project team they might turn to for aesthetic or technical advice in relation to the task they were undertaking or advice about how to manage the dynamics of the project team.

The apprentices were, therefore, involved with a continuous spiral of "relational activity" (Edwards, 2010). The rhythm of this relational activity varied according to whether it was sustained and measured or intense and interrupted. Apprentices working in, for example, costume selection tended to join small teams and to participate in that team's practice in solitary and collaborative modes for sustained periods of time. This offered them a very measured work pattern to begin to develop their identity as a costume specialist, before they gradually became exposed to working with the programme director, producer and actors, etc. and being expected to respond to their questions and requests. In contrast, apprentices working on site, irrespective of the specialism in which they were participating, joined much larger and multi-figured worlds, where they were immersed immediately in their own specialist activity and its relation to other specialist activities. Hence, the apprentices' identity development was focused, from the outset, simultaneously on gaining recognition from their own specialist team members as well as from members from other specialist teams as someone capable of performing tasks competently, and working relationally with other specialists (*name deleted to maintain the integrity of the review process*). Moreover, to do so, apprentices had to learn very quickly how to vary their participation in project teams by learning to perform as well as carry out intense collaborative work for and with combinations of people who had different expertise and for whom they had to present different aspects of themselves – a listener, a volunteer, a co-worker.

A further challenge was that the apprentices were, through their participation in

these figured worlds, exploring whether they would ultimately like to develop production (i.e. arranging and overseeing the making of TV and radio programmes) or technical (i.e. focusing on specific aspects of the production process) expertise and identity (*name deleted to maintain the integrity of the review process*). This, as the apprentices have noted, is an extremely difficult decision to take in advance of working in Media Production, because they have never encountered the work roles potentially available to them so only discover their attraction to, and suitability for, certain work roles once they are participating in project teams.

Making the transition from one project team to another, working to very tight production schedules, placed a considerable emotional and cognitive burden on the apprentices (*name deleted to maintain the integrity of the review process*). In the case of the former, the apprentices had to continually and quickly develop the confidence to form a relationship with a new project manager and new members of their project team. This was vital because there was little 'down-time' in project teams for extraneous conversations about the work process; instead, team members were inclined to use their participation in post-work networks to reflect on what they or the team had learnt or the effectiveness of the 'workarounds'. In the case of the cognitive burden, the apprentices were expected to work in teams whose members were using their aesthetic, technical and managerial forms of knowing, which they had accumulated from many years of working in Media Production, to confidently address the task-in-hand with the minimum of explication as to why and how they were acting in a particular way. This process of working meant that, even when the concepts that underpinned these forms of knowing had been taught to the apprentices in college, the apprentices struggled to recognise them as part of project-team-embodied thinking and acting. For example, the concept of television or radio genres such as, drama, documentary, etc., was taught to apprentices as a way to understanding a narrative or visual style associated with a particular type of television programme. When apprentices were working on a drama or documentary, the project team took the concept of genre for granted and spoke about how to enhance the 'Top Gear' or 'Life on Earth' visual or narrative style. The challenge for the apprentices was therefore to identify whether the concept of genre constituted a resource they could use to help them to contribute to discussions about how to enhance narrative or visual style, or to try to do so by solely immersing themselves in the project team's ways of thinking.

This conundrum was made more complicated by apprentices' previous experiences of encountering attempts to enhance visual or narrative style in previous work placements. The aesthetic or technical changes they and others made had been made in relation to their understanding of a particular director's goal for the programme or a producer's goal for the audience. The challenge for the apprentices was therefore to identify how forms of knowing manifest themselves in ways that are appropriate to the context in which they were working, and to learn how to recontextualise their developing form of knowing according to the task they were

allocated, its relationship to the work of other project team members, and the overarching goal(s) of the programme.

This process of recontextualisation was simultaneously demanding and rewarding since the apprentices, as a result of their placement choices, rarely worked twice with the same project team, and could be located in different sites and be distributed within those settings (i.e. offices, sets, on site facility houses, etc.). This pattern of work placement was demanding because the apprentices, on first joining a project team, were dependent on the team offering them opportunities to recontextualise the forms of knowing they were developing. The process was also rewarding, as apprentices gradually developed the confidence to negotiate opportunities for themselves and recontextualise the growing form of knowing. In anticipation of this challenge, Vision+Media's placement officer always asked project managers, when setting up placements, to encourage their team members to support apprentices during the flow of work by providing them with a mix of routine and stretching activities, and by making time to listen to apprentices' concerns and/or problems, offering suggestions about how to address them, and providing on-going emotional support wherever possible. In parallel, the apprentices gradually realised that although teams tried to support their development by offering them less demanding roles and tasks, project-work is not structured linearly, that is, routine coming ahead of novel work and, as a consequence, the work flow in project teams would require them to simultaneously participate in routine and novel activities. For this reason, the placement officer continually drew to the apprentices' attention the importance of being agentic by listening to workplace conversations and asking why-, and how-questions, in other words, 'why is this the best way to tackle the problem?' and 'how can I contribute?', irrespective as to whether they were unsure or felt they would benefit from further clarification.

At the same time as learning to recontextualise forms of knowing in accordance with the task-in-hand, apprentices were also learning how to accumulate social capital in order to reinforce the development of their vocational expertise and identity. This is because a regular feature of conversation in project teams hinged on which project apprentices would next work on, and to whom had they spoken to in order to secure that work. Listening to such conversations assisted apprentices' grasp of the importance for them to gradually gain confidence in not only asking members of project teams for their personal contacts, but to also attend networking events with members of their own or other project groups. These activities enabled apprentices to gradually accumulate a network of contacts. At a later stage in their apprenticeship and/or post-completion, apprentices could then draw from these networks for advice and/or promote themselves as candidates for new positions in project teams or be invited to join a team based on their growing reputation in their chosen vocational niches. Participation in networks also helped reinforce apprentices' identification their project teams' programmes and their intended audiences since conversations focused on the successes and failures of programmes,

rather than apprentices' immediate locality and the reputation of their employer within that locality

Learning through apprenticeship in contingent work conditions

Conceptual question and issues

We argued at the start of the paper that: (i) the de-centred, distributed and discontinuous work conditions associated with freelance work may simultaneously intensify and diminish the role of the above inter-connected dimensions the role of Fuller and Unwin's four inter-connected dimensions of apprenticeship; (ii) this development is consistent with the broad thrust of Fuller and Unwin's argument that apprenticeship is a social model of learning that always adapts and evolves in response to different economic, political and social conditions, though not necessarily with their conclusion that all four elements remain equally important: and (iii) the emergence of contingent work conditions may necessitate a re-thinking of apprenticeship as a social model of learning in order to take explicit account of the intensification and diminution of Fuller and Unwin's four inter-connected dimensions of apprenticeship. We now use the above case study to consider this claim. We appreciate however the limitations – a small qualitative study – of our empirical evidence. As a consequence, we situate the issues arising from our case study in relation to the literature on working and learning in either project teams from the field of Organisational Studies or the Creative Industries from the field of Cultural Studies, though not in relation to apprenticeship, in order to justify our conclusion that contingent work conditions necessitates a re-thinking of apprenticeship as a social model of learning.

We saw in the case study that when apprentices joined a project team the pedagogic dimension of their learning not only assumed central importance, but is also became subject to competing pressures. Apprentices were, on the one hand, participating in work practices by asking questions, undertaking a mix of routine and novel tasks to become more skilful and confident in their chosen vocational practice, and seeing the contribution of their specialism in relation to that of other team members' so as to learn how to negotiate collaborative work and how to use the team's knowledge and skill to successfully realise different aspects of production processes. The central role of pedagogy in project teams has also been recognised in Organisational Studies (OS). Researchers have noted that such teams, by virtue of their contingent character, have to continually create and re-create conditions to assist team members to collectively deploy their expertise, because they lack the stable conditions associated with workplace communities of practice; otherwise teams are likely to encounter difficulties in completing their goal on time and within budget (Carlisle, 2002; Hydle, Kvålshaugen, and Breunig, 2011; Heizmann, 2014; Sole and Edmundson, 2002; Sturdy and Wright, 2011). However, the case study introduces an issue that has not yet surfaced in the OS literature on project teams. The issue is that the temporal period of learning for apprentices was, paradoxically, decreased and

increased: apprentices have time-bound enculturation in their occupational specialism in project teams of ten-weeks' duration and team-rich inter-occupational enculturation through exposure to team members who have different occupational specialisms. The temporal period was also extended because the networks that the apprentices joined offered them an opportunity to consolidate their vocational practice and judgement through discussions, and listening to other network members' 'war stories'.

In the case of the constantly changing figured worlds of project teams we saw in the case study, the occupational dimension of learning through apprenticeship, in other words, the range of occupational specialists who can offer guidance to an apprentice and help them consolidate their expertise and identity, was intensified and extended. The former happened because members of project teams develop and use their knowledge and skill in ways that continually strike a balance between occupationally-specific and occupationally-relational considerations in connection to deadlines and budgets. By this we mean that experienced team members have developed an understanding of the purpose of their own expertise and identity in relation to developing occupational historical and cultural tradition, as well as in relation to the developing traditions of other members of the team who have different forms of expertise and identity. For example, a project team needs occupationally-specific expertise – sound, lighting, camera, make-up – but it will also need experts to deploy their knowledge and skill in relation to one another as well as in connection to a director's aesthetic vision of what they are collectively trying to achieve. Apprentices are, therefore, positioned to call on the expertise of all team members to offer them aesthetic or technical guidance or practical advice about how to address the task-in-hand, because team members will have relevant insights into how occupationally-specific expertise has to be 'blended' in order to create the desired effect. As a consequence, apprentices develop a relational perspective on Media Production occupations in two senses: they acquire the expertise and identity associated with the occupational specialism they have chosen and an understanding of its relation to other occupational specialisms they will work with, as well as an understanding that the deployment of their own and other occupational expertise will vary according to the goal of the project team they have joined.

The reason the range of occupational specialists was extended is the role of networks; as we saw in the case study, and as evidence reveals from the fields of Cultural (Hesmondhalgh and Baker, 2011; McRobbie, 2015) and Organisational (Barley and Kundra, 2004; Nardi, Whittaker and Schwarz, 1999) Studies. Behind the figured worlds in which the apprentices' or, to borrow Barley and Kundra's (2005) phase, "itinerant experts'" participation lies, as they further point out, intersecting occupational networks and referral "cliques" are situated. As a result, people who are well connected to those who contract for projects are also in a position to recommend potential team members from their own and other specialisms on the basis of reputation. This pattern of network membership and referral positioned

apprentices in a similar way to other itinerant or freelance workers who identify with their network(s) more than any company temporarily employing them or a given company's location. This was apparent in the case study in a number of ways.

To begin, the distributed character of project-work in Media Production – it is spread across studio, site locations, post-production facility houses, etc. – positioned all team members, who may not live in the geographical location where they are working, to develop an intense identification with their collective object of activity and the figure worlds in which it is being realised; usually, the successful completion of the television or radio programme they are working on and the programme subsequently attracting its anticipated audience. Once an apprentice joined a project team, they were also positioned to form a similar attachment to the programme the team was working on. Apprentices swiftly learnt while talking to experienced team members that the development of a reputation of having worked on a successful programme, which could be as a result of its perceived creative features or the size of audience it attracts, enhances the reputation of team members and the likelihood that they will be invited to join other project teams.

Second, the continual process of assembling for the life of a programme, then de-assembling before re-assembling to work on another programme for national and international audiences, positions freelance workers to appreciate the networks in which they participate as providing a context where, as others have noted (Grabher, 2003), they remember and continue their learning, and where they consolidate and extend the further development of their identity and social capital. Once apprentices also begin to participate in networks, this reinforces the impetus for them to bridge networks that assist them in living a liquid life – securing future contracts.

A number of conclusion can be drawn from our discussion of the issues arising from our case study, supplemented by confirmatory insights from Cultural and Organisational Studies, in relation to Fuller and Unwin's four inter-connected dimensions of apprenticeship as a model of learning. The first one is that the pedagogic and occupational dimensions of apprenticeship as a model of learning become more intense, diversified and relational whereas the importance of the social and locational dimensions begins to diminish. This pattern of rebalancing occurs because apprentices' participation in pedagogic and occupational practices, including networking, constitutes the generative basis for the development of their expertise, identity and social capital. As a consequence, apprentices form, on the one hand, strong attachments to the media products and services they are currently working on as well as to the networks that will assist them to secure future employment; and, on the other hand, weaker attachments to locality and their employers' reputation in that locality because in "Liquid Life", as we have seen, networks constitute the new locational and social dimension of apprenticeship: apprentices' participation in networks assists them in establishing themselves as fully fledged members of the occupational community they aspire to belong to, and gain recognition in having attained that status within that occupational community

as well as within related occupational communities.

Conclusion: Apprenticeship for Liquid Life

Based on the argument and evidence presented in the paper and the conclusions drawn above, we suggest that it is timely to re-think apprenticeship as a social model of learning. We start that process by presenting a typology of apprenticeship for Liquid Life. The typology is based on the following criteria, which were used throughout the paper to analyse apprenticeships in Media Production. The criteria are the: (i) purpose (or object) of apprenticeship; (ii) mode of access to and status of the apprenticeship; (iii) context of apprenticeship; (iv) process of learning, development of expertise and identity; and, (v) outcome of learning. In addition, the concepts of vocational practice, figured worlds, social capital, participation and recontextualisation, are used to exemplify what is distinctive about each of the above criteria of the model of learning.

Apprenticeship for Liquid Life: Ideal Typical Model

Criteria for learning	Features of learning
Object of apprenticeship	Prepare apprentices for Liquid Life
Mode of access and status	Locally-determined access Contract-based employed status
Context of apprenticeship	Work context: project, team-determined Educational context: local negotiation
Process of learning	In distributed, multi-faceted, occupational, figured worlds, recontextualisation of: ・forms of knowing and judging ・vocational identity Participation in, bridging and linking: ・occupational networks (own and related)
Development of expertise and identity	Multiple transitions from one: ・de-centred and distributed project team to another ・mode of recontextualisation to another ・contract-based employment to another
Outcome of apprenticeship	Vocational: ・practice (knowledge, skill and judgement) ・identity (occupationally-specific and relational) ・social capital (reputation and networks)

In formulating our typology, we are not arguing that the lineage of apprenticeship as a social model of learning from Lave and Wenger to Fuller and Unwin has been replaced or no longer applies, rather we are arguing that our typology offers a way to extend their contributions because it specifically addresses learning in contingent work conditions. In addition, we hope to have provided other researchers in the fields of Professional/Vocational/Workplace Learning with a way to investigate

apprenticeships in contingent work conditions, and to confirm, develop or critique our typology. Furthermore, given that the organisation of project-based work and incidence of freelance work have been, since the late-1980s, and looks set to remain an accelerating trend in the global economy (Boltanski and Chiapello, 2005; Moullier Boutang, 2010), researchers in other fields such as, Economic Geography, and Organisational Studies who are investigating manifestations of this development may also find the typology helpful. In making this claim, we are not suggesting that other scholars who have written about apprenticeship have failed to take account of the organisation of work or have operated un-reflexively with traditional conceptions of learning. Rather, we suggest that they may have, in the case of the former, accepted un-problematically that apprenticeships can only flourish in stable work conditions (Sennett, 2008); and, in the case of the latter, have identified the processes that assist apprentices to learn in workplaces (Nielsen, 2006) or through on-the-job training (Billett, 2010) in stable conditions. What we have attempted to do is identify the way in which apprenticeship, as a social model of learning, has to be re-thought when working and learning are occurring in de-centred, distributed and discontinuous conditions.

Coda: the pilot apprenticeship which Vision+Media coordinated was re-designated as the Creative and Digital Media framework, and re-named in 2011 by Creative Skillset, the body responsible for the development of apprenticeship frameworks in the Creative sector. The new name reflects Creative Skillset's awareness that employers in all the different industries they serve, for example, advertising, film, TV, radio and web design, increasingly need an infusion of creative, technological and entrepreneurial skills, and that it ought to be possible to offer a single apprenticeship framework that could be customised to support apprentices to develop these skills in industry-specific contexts, rather than having frameworks for each industry.

Furthermore, one outcome of the BBC's strategic decision to relocate major parts of its London-based media production activity to Salford was that it chose to use the Creative and Digital Media framework in-house, rather than continuing to participate in the collaborative arrangement described in this paper. The BBC retained the principle of using production cycles as the building block for apprenticeships. Regrettably, the other media companies ceased to participate in the apprenticeships and, as a result, access to Media Production returned to predominantly graduate-entry via runner positions. It is nevertheless our contention that our argument about learning through apprenticeship for "Liquid Life" in the ways we have outlined still applies.

Acknowledgements.

The empirical research drawn on in this paper was funded via the following grant from the Economic and Social Research Council: ES/F037104/1.

Bibliography

Aarkrog, V. (2012) Best for the Bright? The Pros and Cons of the New Apprenticeship Model. in Pilz, M. (ed) *The Future of Vocational Education and Training in a Changing World*.

Amin, A. (2004) *Post-Fordism: A Reader*. Oxford: Blackwell Press.

Ainley, P. and Rainbird, H. (eds) (1999) *Apprenticeship: Towards a New Paradigm of Leanring*. Kogan Page. London

Barley, S. and Kundra, G. (2004) *Gurus, Hired Guns and Warm Bodies: Itinerant Workers in a Knowledge Economy.* Princeton: Princeton University Press.

Barley, S. and Kundra, G. (2001). Bringing work back. *Organizational Science*, *12* pp: 76-95.

Bauman, Z. (2005) Liquid Life Cambridge Polity

Beck, A. (2003) Cultural Work: Understanding the Cultural Industries. London: Routledge.

Billett, S. (2016) Apprenticeship as a model of learning and a model of education. *Education + Training* Vol 58: 6 pp: 613-628

Billett, S. (2010) Apprenticeships: in Billett, S. (ed) Models, Orientations and Approaches. Dordrecht: Springer Press.

Boltanski, L. (2014) *Mysteries and Conspiracies* London: Polity Press

Boltanski, L. and Chiapello, E. (2005) *The New Spirit of Capitalism* London:Verso

Blair, H (2001) "You are only as good as your last job": the Labor process and the labor market in the British film industry. Work Employment and Society Vol 14 No 4 pp: 619-33

Born, G. (2005) Uncertain Vision London: Seeker and Warburg

Briggs, A. (1985) – The BBC – the First Fifty Years – Condensed version of the five-volume history by the same author Oxford: Oxford University Press

Brockmann, M. (2014) *Learning Biographies and Learning Cultures: Identity and Apprenticeship in England and Germany*. Tufnell Press. London

Carlile, PR (2002) A pragmatic view of knowledge and boundaries: Boundary objects in new product development. *Organization Science* 13(4): 442–455.

Caves. R. (2000) Creative Industries; contracts between art and commerce Boston: Harvard University Press

Clark, L. (1999) The changing structure and significance of apprenticeship with special reference to construction Ainley, P. and Rainbird, H. (eds) *Apprenticeship – Towards a New Paradigm of Learning* London: Kogan Page

Crisell, A. (2002) An Introductory History of British Broadcasting London, Routledge

Collins, R (2009). Paradigm found: the Peacock Report and the genesis of a new model UK broadcasting policy. In: O'Malley, Thomas and Jones, Janet eds. The Peacock Committee and UK Broadcasting Policy. Basingstoke: Palgrave Macmillan, pp. 146–164.

Nielsen, K. (2010) Learning To Do Things with Things: Apprenticeship Learning in a Bakery as Economy and Social Practice in Costall, A. and Drier, O. (2010) *Doing*

Things With Things: The Design and Use of Everyday Objects Ashgate: Aldershot
Cottle, S. eds (2003) Media organization and production London Sage
Department of Education (2010) *The Wolf Review of Vocational Qualifications* London:
Deissinger, T. (2002), "Apprenticeship systems in England and Germany: decline and survival", in Greinert, W.-D. and Hanf, G. (Eds), Towards a History of Vocational Education andTraining (VET) in Europe in a Comparative Perspective, Proceedings of the First International Conference, Florence, October, Vol. 1, Office for Official Publications of the European Communities, Luxembourg, pp. 28-45.
Deitmar, L. Hauschildt, U. Rauner, F. and Zelloth, H. (eds) (2015 The Architecture of Innovative Apprenitceship (201). Springer, Dordrecht.
Deuze, M. (2007) Media Work London: Polity
Dreyfus, H. & Dreyfus, S. (1986) Mind over machine (Oxford, Blackwell).
Edwards, A. (2010) *Becoming an Expert Practitioner: The Relational Turn in Expertise* Dordrecht: Springer Press.
Engeström, Y., Activity Theory and Individual and Social Transformation. In Engeström, Y., Miettinen, R. and Punamaki, R-L (Eds.). (1999). Perspectives on Activity Theory. Cambridge: Cambridge University Press.
Faulconbridge, J. (2010) *Global architects: learning and innovation through communitie and constellations of practice.* Environment and Planning 42:21 p2842-58
Felstead, A., Fuller, A., Jewson, N. and Unwin, L. (2009) *Improving Working as Learning.,* London Routledge
Fuller, Alison and Unwin, Lorna (2010(b)) 'Knowledge workers' as the new apprentices: the influence of organisational autonomy, goals and values on the nurturing of expertise. *Vocations and Learning*, 3 (3). pp. 203-222.
Fuller, A. and Unwin, L. (2010(a)) Change and continuity in apprenticeship: the resilience of a model of learning Journal of Education and Work Vol 2. No5. pp: 405-16
Fuller, A. and Unwin, L. (2008) *Towards Expansive Apprenticeships: A Commentary for the ESRC's Teaching and Learning Programme* London: Institute of Education.
Fuller, A. and Unwin, (2004) Expansive Learning Environments: Integrating personal and orgisational development. In *Workplace Learning in context* (Eds) Rainbird, H.
Grabhner, G. and Ibert, O (2010) *Project Ecologies: A Contextual View on Creativity and Learning in Temporary Organizations*. In Morris, P. Pinto, J. and Soderlund, L. eds Oxford Handbook on the Management of Practices. Oxford, Oxford University Press.
Guile, D. (forthcoming) *Expertise, Project Teams and Internship: beyond the novice-to-expert trajectory and the implications for education policy*
Guile, D. and Lahiff, A. (2012) *Apprenticeship and Freelance Work: a de-centred and distributed model of learning to develop Media Production apprentices' vocational practice and social capital* LLAKES Research Report 37. UCL-Institute of Education
Heizmann, H, (2011) Knowledge sharing in a dispersed network of HR practice: Zooming in on power/knowledge struggles *Management Learning* 42(4) 379–393

Hydle, K., Kvålshaugen, K. and Breunig, K. J. (2014) Transnational practices in communities of task and communities of learning *Management Learning* Vol. 45(5) 609–629

Hesmondhalgh, D. and Baker, S. (2008) 'Creative Work and Emotional Labour in the Television Industry', Theory, Culture and Society 25(7-8):97-118.

Holland, D., W. Lachicotte, D. Skinner, and C. Cain. 1998. Identity and agency in cultural worlds. Cambridge, MA.: Harvard University Press.

Lazerrati, L. (2014) *Creative Industries and Innovation in Europe* Routledge: London

Lehmann, W. (2012) Youth Apprenticeships in Canada: Context, Structures and Apprentices' Experiences. In Pilz, M. (ed) *The Future of Vocational Education and Training in a Changing World*.

Hutchins, E. (1995) Cognition in the wild. Cambridge, MA: MIT Press.

Langham, J. (1997) Lights, Camera, action: Careers in film, Television and video 2nd edition. London: British Film Institute

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. New York: Cambridge University Press.

Malloch, M., Cairns, L., Evans, K., and O'Connor, B. (edited) *The SAGE Handbook of Workplace Learning*, London: Sage

Nardi, B.

Nielsen, K. (2006). Apprenticeship at the Academy of Mus*ic. International Journal of Education & the Art*s, 7(4).

McRobbie, A. (2015) Be *Creative: Making a Living in the New Culture Industries,* Sage London

Morris, P. Pinto, J. and Soderlund, L. eds (2010) *Oxford Handbook on the Management of Practices*. Oxford: Oxford University Press.

Milne, A. (1988) DG: The Memoirs of a British Broadcaster

Potter, I. (2008) The Rise and Rise of the Independents London: Guerilla Books

Piore, M and Sabel, C. (1994) The Second Industrial Divide London: Sage

Rauner, F. and Smith, E. (2010) Rediscovering Apprenticeship. Research Findings of the International Network on Innovative Apprenticeship (INAP). Springer, Dordrecht.

Sennett, R. (2008) The Craftsman (London, Allen Lane).

Skillset (2010) Strategic Skills Assessment for the Creative Media Industries http://www.skillset.org/uploads/pdf/asset_16205.pdf?

Skillset (1994) *Employment patterns and Training Needs1993-94* London: Department for Employment

Sole, D and Edmondson, A (2002) Situated knowledge and learning in dispersed teams. *British Journal of Management* 13(1): 17–34.

Sturdy, A. and Wright, C. (2011) The active client: The boundary-spanning roles of internal consultants as gatekeepers, brokers and partners of their external counterparts *Management Learning* 42(5) 485–503

Turner, B. (2003) McDonaldization: linearity and liquidity in consumer culture

American Behavioural Scientist 47 2 pp 137-153
Universities UK (2005) Patterns of higher education institutions in the UK: fifth report. Available online at http://bookshop.universitiesuk.ac.uk/downloads/patterns5.pdf
(accessed 28 July 2006)
Worthen, H. and Berchman, M. (2010), "Apprenticeships: what happens in on-the-job training (OJT)?", in Billett, S. (Ed.), Learning Through Practice, Springer, Dordrecht, pp. 222-239.