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**Position, Possession or Process? Understanding Objective and Subjective
Employability during University-to-Work Transitions**

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Abstract

This article aims to understand predictors of objective (i.e., job offers, employment status and employment quality) and subjective (i.e., perceived) graduate employability during university-to-work transitions. Using survey data from two cohorts of graduates in the UK (N=293), it contrasts three competing theoretical approaches to employability: position (based on social background), possession (of human capital) and process (of career self-management (CSM)). Findings support the process view of graduate employability, developed through engaging in career self-management, in particular environment exploration, networking and guidance seeking. There is also some support for a possession view where educational credentials predict employment quality and perceived employability. Theoretically, the study highlights the importance of proactive career behaviours as well as the constraining role of educational credentials for some during university-to-work transitions. These findings have practical implications for university students/graduates and career counsellors, and, more indirectly, for employers and policy-makers.

Keywords: university graduates; employability; university employability; university-to-work transitions; careers; career self-management

Introduction

This article builds on Holmes (2013) conceptual distinction between three competing explanations of university graduate employability: possession (of human capital); position (based on social capital); and process (based on career self-management (CSM)). Employability during university-to-work transitions has primarily been studied from the former two perspectives which show systematic differences in access to good jobs based on social and educational background (Kalfa and Taksa 2013; Mavromaras et al. 2010). The process of managing university-to-work transitions, through CSM and particularly in post-recessionary, stagnant labour markets, has received little scholarly attention. Using concepts from careers research, and building on the current discussion of graduate employability as possession and position, this article contrasts these three theoretical perspectives for a better understanding of successful university-to-work transitions.

Graduate employability is often operationalised in terms of job offers, employment status and, to a lesser extent, quality of employment. Such objective indicators have direct implications for individuals' employment outcomes, universities' performance and employers' practice. Despite its relevance for well-being and subsequent career behavior (Berntson and Marklund 2007), subjective experience of employability is often neglected in discussions of graduate employability. Particularly in post-recessionary graduate labour markets, such as that of the UK (the context of this study), there is a further need to consider graduate employability not only as reflected in employment outcomes (i.e., objectively) but also as experienced by the individual (i.e., subjectively).

By contrasting three competing approaches to objective and perceived employability, this article brings together often non-communicating strands of literature

(i.e., possession and position views on the one hand, and a process view on the other). One major critique of the dominant possession and position perspectives concerns their rather deterministic practical implications (Holmes 2013). The former implies that education determines graduates' human capital and labour market opportunities while the latter holds that educational and social background reinforces societal stratification and disadvantage. A process view of graduate employability takes into account how graduates manage university-to-work transitions, and focuses more on the interactional nature of educational and employment trajectories. It, therefore, has greater applied relevance for graduates and those involved in enhancing graduate employability.

The paper, first, presents objective and subjective conceptualizations of graduate employability. Hypothesis development is informed by a review of the three theoretical approaches to employability. Using survey data from two cohorts in the UK, the findings show support for process and possession views of employability. Discussion reflects on theoretical and practical implications of these findings.

Conceptualising graduate employability

Defined broadly, employability refers to the individual's capability to obtain and maintain employment (McQuaid and Lindsay 2005). Objective indicators of employability, particularly job offers and employment status, are commonly used by researchers and policy makers (e.g., Cranmer 2006). Employment quality is largely conceptualised as person-job/-organisation fit (e.g., Saks 2006). However, recent discussion of graduate employment outcomes suggests certain aspect of jobs that distinguish high-skilled and non-graduate occupations need to be taken into account in discussions of employability (Okay-Somerville and Scholarios 2013). This includes: opportunity to use skills and initiative, training provision, job security and pay.

Employability research on the wider working population also considers perceived, as well as objective, employability (e.g., Berntson and Marklund 2007). Particularly in turbulent economic times, perceived employability has implications for individuals' well-being through its effect on perceived job insecurity (de Cuyper et al., 2008). Career transitions, even during economic prosperity, necessarily challenge how one understands the world and locates oneself within it. In particular, university-to-work transitions happen at a time when graduates make decisions about the most important things in life while not having much experience in doing so (Feldman 2003). It can be argued, therefore, that perceived employability upon graduation constitutes an important indicator of graduate well-being. For graduate entrants to the labour market internal and external perceptions of employability can be distinguished (Rothwell, Herbert, and Rothwell 2008). The former refers to factors associated with perceptions of knowledge, skills and abilities and job search. The latter is associated with factors outwith the individual's control, e.g., demand for degree subject, prestige of the university and the overall state of the graduate labour market (GLM).

Whether examined objectively or subjectively, it can be argued that the outcome of employability is employment on the individual's part. Difficulty arises in defining 'how' employment is secured and maintained. Recent theorising differentiates between possession, position and process approaches to developing and enhancing graduate employability (Holmes 2013). These are considered next.

Graduate employability as possession

As a result of their HE experiences, graduates are expected to *possess* certain skills and qualities (e.g., team working and problem solving), referred to as their 'graduateness', which will 'make them employable' (CBI 2009). Some argue, therefore, that the

variability observed in graduate employment outcomes reflects gradueness skills (Mavromaras et al. 2010): less skilled/able graduates are less employable. Critics caution, however, that ‘employability as possession’ rhetoric is yet another way of blaming the victim for their predicament, showing that development of ‘gradueness’ skills does not necessarily guarantee graduate employability (Pirog 2014).

Graduate employability as position

The positional conflict view of graduate employability (Brown 2000) argues that HE expansion reflects credential inflation, where, as the supply of the commodity (credentials) increases at a greater pace than its demand, its value weakens. This view predicts that social elites will make use of their resources to acquire more prestigious credentials, to *position* themselves better in the queue for limited high skilled vacancies, and therefore, to secure their advantage in the competition (Brown, Hesketh, and Williams 2003). In support of this, graduates from working class backgrounds report poorer perceived employability, are more likely to be working in non-graduate occupations and earn significantly less than their middle class counterparts (Kalfa and Taksa 2013).

Social background influences employability both directly and indirectly (Blasko et al. 2002). Direct effects are visible when graduates from disadvantaged backgrounds face more difficulties in the GLM in comparison to others who have similar educational tracks. The indirect effect is argued to be through educational experiences (e.g., type of university and degree class). For instance, in the UK, graduates from disadvantaged backgrounds are less likely to have attended pre-1992 universities or studied non-professional degree subjects, and more likely to have attained lower degree classifications in comparison to middle class graduates (Tomlinson 2012). Hence, the

impact of social background on graduate employability is argued to be ‘institutionalised’ (Brown 2004): social background is associated with access to more prestigious educational credentials, and hence possession of employability skills, and reinforced by employers who screen based on a ‘hierarchy of universities’ (Holmes, 2013, 547).

Evidence from graduate destinations shows systematic differences in access to high-skilled jobs based on educational background: graduates from new universities, who achieved 2:2/lower classifications and from non-professional degree subjects are more likely to be overqualified upon graduation in comparison to those from old universities, who achieved 2:1/1st class degrees and from professional subjects.ⁱ The former also report perceived lack of trust in their educational credentials and personal skills in securing high skilled work (Tomlinson 2008).

Graduate employability as process

A third perspective to graduate employability suggests that it is developed as a result of a *process* of career self-management (CSM) (e.g., Bridgstock 2009). This points to the role of proactive career behaviours in successfully managing careers, especially in today’s turbulent economic times. For example, despite employability discussion in the UK largely revolving around possession and position issues, the Association of Graduate Recruiters recently stated that the major problem in filling vacancies was not graduate quality but the quality of their applications. Such views suggest that employability is associated with how graduates manage university-to-work transitions (Lewis 2014).

The great majority of graduates experience uncertainty upon graduation as they question the role of education for employability (Lairio and Penttinen 2006). For

overcoming such uncertainty and negotiating labour market barriers, careers research highlights the role of CSM. CSM refers to a process of regular career-related information gathering and planning (Kossek, et al. 1998). It is argued that CSM is crucial in successful university-to-work transitions, as it provides the individual with a realistic preview of their opportunities (Wendlandt and Rochlen 2008).

Particularly for new entrants to the GLM, career exploration, guidance seeking, networking and work experience have commonly been cited as behaviours associated with CSM to position themselves better in the competition for high-skilled vacancies and to influence recruiters' decision-making in their favour (Okay-Somerville and Scholarios 2014). Career exploration sustains the search of information through career-related introspection (i.e., self-exploration) and identifying opportunities (i.e., environment exploration) and helps achieve better person-occupation/job fit (Zikic and Klehe 2006). Career exploration, therefore, is one of the markers of career identity and adaptability and an important resource for coping with career transitions (Savickas and Porfeli 2012). For inexperienced new entrants into the GLM, career exploration will be especially important for understanding the work environment and career options as well as shaping their own career self-assessments and job choices, and thereby overcoming career indecision (Van Vianan, Pater, and Preenen 2009). Similarly, career-related guidance seeking fosters adaptability. High guidance seeking individuals engage in more career compromises, experience less career-related distress and more positive career-related outcomes (Creed and Hughes 2013).

Networking involves contacting friends and acquaintances with the aim of receiving career-related advice and job leads. Networking positively impacts the flow of job/vacancy relevant information, enhances social capital, and hence employability (de Janasz and Forret 2007). In fact, networking was cited amongst the most important

methods used by graduates in the UK in securing the first job after graduation (Brennan et al. 2001).

Work experience is argued to increase human capital (via hands on experience), social capital (via professional network development), and career identity and adaptability by providing a realistic preview of working life and its requirements. Although the evidence is mixed (e.g., Wilton 2012), work experience is shown to be positively related to graduates' employment outcomes (Mason, Williams, and Cranmer 2009).

Research hypotheses

In this article, we examine the evidence for each of the three perspectives of graduate employability and, specifically, for the effects of social background and access to educational and employment opportunities. Our first set of hypotheses examines the role of educational and social background in shaping objective and subjective employability and hence considers evidence for the positional view of employability. This perspective holds that possession of a degree, and its assumed provision of gradueness skills, is inadequate for predicting employability which is, rather, determined by social background. Social background not only is directly related to employability, but also indirectly plays a role by shaping access to educational credentials. These findings suggest the following hypotheses:

Hypothesis 1 (H1): Middle class graduates will report more favourable objective and subjective employability upon graduation, in comparison to working class graduates.

Hypothesis 2 (H2): Graduates from old UK universities, with 2:1/1st class degrees and from professional degree subjects are more likely to report higher objective and perceived employability in comparison to those from new

universities, with 2:2/lower classifications and from non-professional degree subjects.

Hypothesis 3 (H3): Educational credentials will account for part of the variability in objective and subjective employability due to social background.

Beyond the positional perspective, the employability literature also almost unequivocally predicts and demonstrates a positive link between CSM and employability. We also expect CSM to account for some variability in employability due to educational credentials. At the start of graduate careers, opportunities to engage in CSM are shown to be constrained by educational background (Okay-Somerville and Scholarios 2014). For instance, graduates from older UK universities enjoy the benefits of employers' 'milk round' attention where they can explore career opportunities and possibly network. Similarly, graduates from professional degree courses are generally socialised into career opportunities in their fields, while this is a rarity for those from non-professional degree courses as career routes are less visible for the latter (Scholarios, Lockyer, and Johnson 2003). This suggests the following hypotheses about the relationships between CSM, education and employability.

Hypothesis 4 (H4): Career self-management (career exploration, guidance seeking, networking, and work experience) will be positively related to objective and subjective employability.

Hypothesis 5 (H5): Career self-management will account for part of the variability in objective and subjective employability due to educational background.

Method

Sample

A survey instrument was administered to two cohorts of graduates (2009 and 2010) in the UK. Pre-pilot (N=5) and pilot (N=30) testing were conducted to determine the accuracy, and reliability and validity of the survey, respectively. The list of universities obtained from the Universities and Colleges Admission Service (UCAS) website (<http://www.ucas.com>) was used as the sampling frame. Several methods were used to recruit participants including contacting university alumni and careers services, heads of departments and universities' social networks (e.g., Facebook) for announcement of the survey. Overall, 27 per cent of responses were gathered via alumni service announcements and a further 21 per cent from careers service announcements. A total of 433 volunteered responses were received. Those who did not plan to start work immediately after graduation were excluded from the analyses. This resulted in a final sample size of 293 participants (60% female; mean age=23, SD=3 years; 26% from new universities; 42% non-professional degree graduates (e.g., social sciences); and 70% had 1st/2:1 degree) (see Endnote for UK degree classifications).

Measures

Social background. Two dichotomous variables were used: parent education (0=neither parent holds a university degree, 1=at least one parent holds a university degree) and parent occupation (0=both parents in low or intermediate-skilled occupations, 1=at least one parent in high-skilled occupation). A score of 1 on either measure was taken to reflect middle class participants.

Educational background. University type (0=old university, 1=new university); degree class achievement (0=1st/2:1, 1= 2:2 or lower); and degree subject (0=professional subject (e.g., engineering), 1=non-professional subject (e.g., humanities)) were all measured as dichotomous items.

Work experience was measured using one dichotomous item: “do you have work experience relevant for your degree subject?” (0=no, 1=yes). Dichotomous, rather than continuous, measurement was appropriate as the variability of work experience duration is likely to be limited for this sample of fresh university graduates.

Career exploration was measured using the environment- (six items; e.g., ‘investigated career possibilities’; Cronbach alpha reliability coefficient (α)=.86) and self-exploration (five items; e.g., ‘focused my thoughts on me as a person’; α =.88) subscales of the Career Exploration Scale (Stumpf, Colarelli, & Hartman, 1983). Respondents were asked to think over the last six months and indicate the extent to which they have engaged in each of the behaviours on a 5-point Likert scale (1=never, 5=very frequently).

Guidance seeking was measured by asking whether the participant received any guidance in making career decisions (1) or not (0), then six options were presented to select as appropriate: careers advisors, academic advisors, professional contacts in the graduate’s academic field, other professional contacts, parents and friends. A total guidance score was computed (α =.70).

Networking. Wanberg, Kanfer and Banas’ (2000) 8-item Networking Comfort Scale was used (5-point scale, 1=strongly disagree, 5=strongly agree, e.g., “I am comfortable asking my friends for advice regarding my job search”; α =.81).

Perceived internal and external employability. Rothwell, Herbert and Rothwell's (2007) self-perceived employability scale for university students was used (16 items; 5-point scale 1=strongly disagree, 5=strongly agree). Perceived internal employability was measured using six items (e.g., 'The skills and abilities that I possess are what employers are looking for'; $\alpha=.73$). Perceived external employability was measured using ten items (e.g., 'Employers are eager to employ graduates from my university'; $\alpha=.86$).

Objective employability. This was measured with three items: (a) job offer (whether the participant received at least one job offer (0=no, 1=yes)), (b) employment status (whether they have accepted the job offer (0=no, 1=yes)), and (c) a composite measure of employment quality (for those who were in employment (N=239), six items asking whether the job provides opportunity to use skills, initiative, training and development, job security, and variety in job content and good pay; each dichotomous items (0=no, 1=yes); $\alpha=.89$).

Control variables included: age, sex (0=female, 1=male), term-time part-time work (0=no, 1=yes), cohort (1=2009, 2=2010), survey announcement (1=announced via university channels, e.g., careers and alumni, 0=via social networks or friend referral) and time elapsed between respondents' graduation and completion of the survey. At the time of the survey, on average, participants were 2.5 months into their 'graduate lives'.

Analyses

Hierarchical regression analyses for each indicator of employability were conducted. For job offer and employment status this was in the form of a series of logistic regressions and for the remainder of indicators of employability multiple linear regressions were conducted. Control variables were entered in Step 1, followed by

social background (Step 2; *H1*), educational credentials (Step 3; *H2*), and CSM variables (Step 4; *H4*). Variance explained due to educational background (*H3*) and CSM (*H5*) was informed by comparing the variance explained in each step with the previous (ΔR^2).

Findings

Table 1 presents the means, standard deviations, and bivariate correlations between study variables. This shows that social background has no effect on any indicator of employability. Graduating from new universities ($r = -.19, p < .05$) or from non-professional degree subjects ($r = -.22, p < .05$) were negatively related to external employability perceptions. The latter was also negatively associated with employment quality ($r = -.15, p < .05$). Degree classification was found to be negatively associated with internal employability perceptions ($r = -.14, p < .05$) and employment status ($r = -.14, p < .05$). All CSM variables except for work experience were positively associated with internal perceived employability and all CSM variables but work experience and self-exploration were positively associated with external perceived employability. Guidance seeking and networking were positively associated with all indicators of objective employability. Furthermore, environmental exploration was positively correlated with employment quality.

[Table 1 here]

Tables 2 and 3 report multiple regression analyses predicting objective and subjective employability. This shows that social background has no significant direct effect on any indicator of employability. Graduates from non-professional degree subjects reported poorer employment quality ($\beta = -.31, p < .05$) and perceived external employability ($\beta = -.24, p < .05$) in comparison to professional degree graduates.

Graduates from new universities reported lower perceived external employability ($\beta = -.24, p < .05$). Having graduated with a 2:2/lower degree classification was negatively associated with all indicators of employability, but perceived external employability. Moreover, the findings show that educational credentials explained greater variance on all measures of employability than did social background. However, judging by the overall model fit ($\Delta\chi^2$ for job offer and employment status and ΔF for employment quality and perceived internal and external employability) this effect was only significant for employment quality and perceived internal and external employability. These findings provide no support for *H1* but partial support for *H2* and *H3*.

[Table 2 and 3 here]

Examining the effects of CSM on employability, networking increases the likelihood of receiving job offers ($\beta = 1.99, p < .05$) and being in employment ($\beta = 1.94, p < .05$). Employment quality and perceived external employability are positively associated with environment exploration and guidance seeking. Moreover, environment exploration is also positively associated with perceived internal employability ($\beta = .28, p < .05$). This provides partial support for *H4*. Judging by the overall model fit, in support of *H5*, CSM variables explain significant variance over and above that by social and educational background on all indicators of employability. This effect was highest for perceived internal employability ($\Delta R^2 = .16$) followed by employment status ($\Delta \text{Nagelkerke } R^2 = .15$), job offer ($\Delta \text{Nagelkerke } R^2 = .08$), and employment quality and perceived external employability (both $\Delta R^2 = .06$).

Discussion

With the aim of understanding the predictors of graduate employability during university-to-work transitions, this research examined three competing approaches to

employability: possession (of human capital); position (based on social background); and process (of CSM). Social background had no direct impact on graduate employability (*H1*). Educational background, in particular degree classification, had a significant influence over and above social background on employment quality, and perceived internal and external employability (*H2* and *H3*). Among the CSM variables included in this analysis, networking, environmental exploration and guidance seeking were positively associated with different indicators of employability (*H4*). Inclusion of CSM variables significantly improved model fit and explained variance over and above that of social and educational background on all indicators of employability (*H5*). Overall, the results support a process view of graduate employability that is developed through engaging in CSM. To the extent that educational credentials can be used as proxies of human capital, there is also some support for the possession view.

Theoretical implications

Two primary contributions emerge for understanding graduate employability during university-to-work transitions. Firstly, there is support for greater theorising graduate employability as enhanced through CSM (Bridgstock, 2009), and hence, from a process view (Holmes, 2013). Secondly, the study emphasises a need to discuss graduate employability and its predictors both objectively (as reflected in labour market outcomes) and subjectively (as perceived by individuals).

Findings show incremental effect of CSM on all indicators of graduate employability, particularly for perceived internal employability and employment status. This is in line with the recent emphasis on agency for enhancing employability (de Vos and Soens, 2008). The study suggests that proactive career behaviours meaningfully explain objective and subjective employability. More specifically, for job offers and

employment status, the findings show importance of more social/relational aspects of job search, i.e., networking and guidance seeking. Moreover, environment exploration, but not self-exploration, was found to be positively associated with employment quality and perceived internal and external employability. These findings show the importance of CSM for navigating the increasingly fragmented post-recession GLM for successful university-to-work transitions.

We find that two aspects of CSM measured in this study - self-exploration and work experience - did not predict any indicator of employability. It can be speculated here that both may have more distal/indirect effects on employability. Table 1, for instance, shows that graduates from new universities ($r=.16, p<.05$) and with poor degree classification ($r=.16, p<.05$) are more likely to engage in self-exploration, which is positively associated with perceived internal employability ($r=.17, p<.06$). These educational credentials were also found to play a significant role, particularly on perceived employability. Speculatively, it could be argued that self-exploration may lead some to question their employability (Zikic and Klehe 2006), particularly if they have less prestigious educational credentials.

Lack of significant associations between work experience and employability is contradictory to mainstream employability research and policy. Yet, recent research also questioned the direct relationship between work experience in early career and employment outcomes during university-to-work transitions (e.g., Wilton 2012). Bivariate correlations in Table 1 show that work experience is positively associated with self-exploration ($r=.24, p<.05$) and guidance seeking ($r=.16, p<.05$). Work experience may enhance graduate employability indirectly by fostering more proactive career behaviours.

Although incremental validity was less than 10 per cent where significant, the findings also support the possession view of employability, where possession of knowledge, skills and abilities are signalled through educational credentials. Particularly degree classification was found to have an impact on all indicators of employability, except perceived external employability. Degree classification is widely used as a screening tool by recruiters and as a proxy for human capital by researchers (Green and Zhu 2010). Similarly, results show that type of university impacts perceived external employability. Old universities are argued to attract the more able students and provide them with higher quality education, and their graduates are thus perceived to be more capable than those from new universities (Chevalier and Conlon 2010). Finally, the findings show that graduates from non-professional degree courses report poorer employment quality and external employability perceptions. This may be explained by observing the structure of occupations: non-professional degree graduates face a more uncertain GLM where career options are not necessarily visible upon graduation and often such an understanding develops with some experience (Okay-Somerville & Scholarios 2014). Overall, the findings point to the constraining role of educational credentials (i.e., possessions) for some and an enabling role for others, depending on the value of credentials in the GLM.

Our findings show no support for a position view of employability. Conceptually, this may be explained by the argument that the effect of social background on graduate employability is hidden and institutionalised. However, bivariate correlations in Table 1 do not show such clear associations between social and educational background. In this study, we operationalized social background as parental occupation and education. Future research may choose to focus on the individual's perception of his/her social class.

Overall, the findings provide support for a process and, to a lesser extent, possession view of graduate employability. This emphasises proactive career management to influence gatekeepers' decision-making, as well as favouring more prestigious educational credentials. For understanding graduate employability this calls for multidisciplinary collaborations by proponents of these perspectives.

A second contribution of the study is its treatment of graduate employability not only in relation to job offers and employment status but one that also includes quality of employment and subjective experience of employability. This allows a fine-grained understanding of graduate employability by highlighting commonalities and differences among predictors of various indicators of employability. For instance, while CSM was found to provide incremental variance across all indicators of employability, it can be argued that this is most important for employment status (15%) and perceived internal employability (16%). Findings, further, show that social and educational background do not explain any incremental variance over and above control variables in job offers and employment status, the two commonly used indicators of employability. This suggests that CSM is even more important for these two indicators of employability. The study therefore highlights the importance of incorporating the process view into the graduate employability debate, while also acknowledging relative impact of educational credentials and CSM on different indicators of employability.

While not having a direct impact on objective measures of employability, degree subject and university type significantly effect perception of external employability. Such lack of confidence in one's qualifications may potentially act as a self-fulfilling prophecy, constraining CSM during university-to-work transitions. Graduates may perceive proactive behaviours as futile in securing high-skilled work (Okay-Somerville and Scholarios 2014). Hence, quality of employment and perceived employability, and

the relationships between these concepts, may be more meaningful outcomes of university-to-work transitions as these have been shown to be associated with self-esteem and graduates' future career attitudes.

Practical implications

There is no doubt that proactive career behaviours play a critical role in the 'new' career. Our findings also support this for university-to-work transitions. Increasing oversupply of graduates in the GLM implies that some graduates will necessarily be unemployed or underemployed, at least in early careers. Proactive career behaviours are therefore essential for locating opportunities and influencing gatekeepers. Using data from 2009 and 2010, at the height of the economic recession, the study shows that in today's turbulent labour markets career-relevant behaviours influence objective and subjective employability over and above social and educational background.

For those involved in career counselling, the findings suggest that students/graduates should be encouraged to engage in proactive career management. More importantly, the results propose that this kind of support, particularly through networking and guidance seeking, is most beneficial for the more meaningful outcomes of university-to-work transitions: employment quality and perceived employability. Students/graduates may be encouraged towards more interaction with professionals in their field, e.g., alumni. The results also suggest environmental exploration, e.g., attending careers fairs or visiting graduate recruitment websites, as a possible option for such CSM.

These practical implications for graduate CSM may inadvertently blame the victim for their predicament. It is not our intention to suggest that a considerable proportion of graduates in the UK are overqualified upon graduation because they do not

proactively manage their careers. In fact, considering the mismatch of supply and demand for graduate skills in the UK GLM the findings indirectly point to interventions geared towards generating more favourable employment opportunities on the demand side, e.g., through efficient skills utilisation.

The impact of environmental exploration and social aspects of CSM on the more meaningful outcomes of university-to-work transitions suggests that employers may contribute to graduate employability making opportunities more visible for candidates. Considering that a significant proportion of graduates now start work life in intermediate-skilled work which traditionally did not employ graduates (Abel, Deitz and Su 2014), these ‘new graduate employers’ may be encouraged to engage with applicants more closely, e.g., through university open days. Particularly significant is the finding that graduates from non-professional degree subjects are more likely to be in poorer quality jobs and perceive their GLM opportunities as less favourable than professional degree graduates. This shows the importance of making career opportunities more visible to candidates.

A further implication of these findings concerns skills policy in the UK. The study points to the complexities of graduate employability. This recommends a move away from operationalizing graduate employability as employment status six months after graduation, as measured in the graduate destinations surveys. The study shows that this is a rather simplistic approach to graduate employability and more meaningful measures would include employment quality and perceived employability. Although there are signs of change, UK skills policy still bears a supply-side focus, placing the primary responsibility for employability on graduates and universities. While our findings highlighting the role of CSM support such emphasis, findings concerning a

differentiating role based on educational credentials suggest that the demand-side should receive more attention in policy discourse.

Limitations and future research

The study has two major limitations that warrant caution in interpreting findings and need to be addressed in future research. Firstly, its cross-sectional and self-report design limits the confidence with which we can infer causality among study variables. The findings highlight a process view of graduate employability. In order to capture this, participants were asked to reflect over the last few months of their career. Future research should seek to operationalize the process of CSM in longitudinal designs, possibly following students in the final year of university into early careers. Such designs may help clarify some of the speculative suggestions that arose from this research, e.g., the distal role of self-exploration on employability.

A second limitation concerns the use of multiple sampling strategies and the nature of the sample. The sample limitations were largely due to the upcoming Destinations Survey administered by the Higher Education Statistical Agency (HESA) in the UK, which takes place six months after graduations. Alumni and careers services were reluctant to announce the survey, as this may cause survey fatigue. Difficulty of access to the sample resulted in rather small sample sizes for the two cohorts. Future research should aim for better collaborations with university representatives and relevant institutions (e.g. HESA). In addition, the voluntary nature of participation in the survey may have disproportionately attracted graduates who were already more active in the labour market. Given that our focus was only on those who were active, and that the sample comprised an even distribution between those who had and had not received job offers or were already in employment (Table 1), the sampling approach will have had

minimal impact on the representativeness of the sample for the purposes of this analysis. Moreover, the sample characteristics largely mirrored that of the population as reported by the Higher Education Statistics Agency (HESA) for the two cohorts, particularly on the distribution of sex, degree course completed and class of qualification achieved (www.hesa.ac.uk).

Conclusion

In understanding graduate employability during university-to-work transitions, this study built on the prevalent position and possession views of graduate employability and contrasted these with a process view. The findings support process and, to a lesser extent, possession views of graduate employability. This highlights the importance of proactive career self-management, in particular through environment exploration, guidance seeking and networking, for almost all indicators of employability. Moreover, educational credentials meaningfully contributed to employment quality and perceived employability. In particular, degree classification was negatively associated with almost all measures of employability.

The study highlights a need to consider graduate employability in broader terms, incorporating multi-disciplinary approaches as reflected in possession, position and process views. Considering the uncertainty in today's post-recession GLMs worldwide, using data from two cohorts that graduated during the economic recession, the study highlights the role of exploring job/career-relevant opportunities as well as that of relational aspects of career management, i.e., networking and guidance seeking. Practically, this recommends a role for graduates/universities but also employers and policy-makers in engagement for career decision-making.

Using multiple indicators of graduate employability, the study questions the utility of simplistic measures, e.g., employment status. This also implies skills policy recommendations, which considers the complexities of graduate employability, particularly taking into account quality of employment and perceived employability.

Overall, the study shows that both agentic (proactive career management) and structural (educational credentials) factors contribute to graduate employability. Accordingly, we recommend more proactive behaviours on the supply side (i.e., students/graduates and universities) but also more enabling/engaging behaviours on the demand/policy side.

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Table 1 Means, standard deviations and bivariate correlations for study variables (N=293)

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1 2010 Cohort	1.37	.48	—										
2 University announcement	.74	.44	.42**	—									
3 Months after graduation	2.66	2.88	-.62**	-.45**	—								
4 Age	23.01	2.93	-.11	.12*	.01	—							
5 Male	1.41	.49	.00	-.09	-.02	.01	—						
6 Term-time work ^a	.73	.44	.03	-.02	-.08	.01	-.06	—					
7 Parents' education ^b	.50	.50	.01	.01	-.06	-.25**	.03	-.19**	—				
8 Parents' occupation ^c	.62	.49	-.06	-.02	.07	-.32**	.00	-.08	.42**	—			
9 New university ^a	.26	.44	-.04	-.16**	.14*	.20**	-.03	-.04	-.16*	-.15*	—		
10 Non-professional degree ^a	.40	.49	-.16*	-.01	.04	.07	-.23**	.02	-.04	.06	-.01	—	
11 Poor degree class ^a	.31	.46	-.12*	.05	-.05	.21**	-.11	.04	.04	-.11	-.01	.00	—
12 Work experience ^a	.25	.44	-.04	.02	-.01	.17**	.02	.35**	-.12	-.17**	.04	.08	.15*
13 Environment exploration	3.38	.86	-.16**	-.23**	.20**	-.10	.03	-.10	-.01	-.07	.05	.01	.00
14 Self-exploration	3.38	.87	-.18**	-.15*	.17**	.13*	-.06	.07	-.04	-.12*	.16**	.11	.16**
15 Guidance seeking	1.64	1.73	.05	-.02	-.03	-.18**	.08	.06	.15*	.01	-.09	.02	-.03
16 Networking	3.61	.64	.03	.09	-.19**	.13*	.09	.06	-.02	.04	-.11	.07	.07
17 Internal perceived employability	3.67	.63	-.04	-.07	.01	.08	.04	-.06	-.01	-.08	.01	-.03	-.14*
18 External perceived employability	3.20	.73	.09	-.02	-.06	-.03	.12	-.15*	-.04	-.07	-.19**	-.22**	-.02
19 Job offer ^d	.56	.50	-.04	-.17**	.02	-.04	-.02	.12	-.06	-.06	-.02	-.06	-.08
20 Employment status ^e	.52	.50	-.01	-.17**	.02	-.12	-.04	.09	-.03	-.01	-.03	-.03	-.14*
21 Employment quality	1.71	2.13	-.05	-.15*	.02	-.13*	.02	.02	.03	-.02	-.01	-.15*	-.12

	12	13	14	15	16	17	18	19	20	21
12 Work experience	—									
13 Environment exploration	.00	—								
14 Self-exploration	.24**	.41**	—							
15 Guidance seeking	.16*	.08	-.06	—						
16 Networking	.08	.11	.03	.30**	—					
17 Internal perceived employability	.11	.35**	.17**	.22**	.33**	—				
18 External perceived employability	-.06	.21**	.07	.18**	.16**	.55**	—			
19 Job offer	.08	.07	.00	.19**	.20**	.21**	.13*	—		
20 Employment status	.05	.06	-.02	.21**	.18**	.20**	.15*	.91**	—	
21 Employment quality	.00	.17**	.03	.26**	.19**	.33**	.30**	.71**	.77**	—

Note. ^a0=no, 1=yes; ^b1=at least one parent holds a university degree; ^c1= at least one parent in high-skilled work; ^d1=at least one job offer;

^e1= in employment; * p<.05, **p<.01.

Table 2 Logistic regression analyses predicting job offer and employment status (N=293)

	Job offer			Employment status		
	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4
	β	β	β	β	β	β
2010 Cohort	1.13	.95	.99	1.34	1.13	1.20
University announcement	.45*	.43*	.38*	.44*	.42*	.36*
Months after graduation	.99	.98	1.00	1.00	.98	1.00
Age	.99	1.00	.99	.97	.98	.98
Male	.87	.73	.61	.81	.70	.58
Term-time work ^a	1.49	1.53	1.35	1.28	1.32	1.16
Parents' education ^b	.80	.78	.83	.82	.83	.86
Parents' occupation ^c	.89	.89	.79	.97	.93	.84
New university ^a		.73	.85		.74	.85
Non-professional degree ^a		.64	.59		.76	.72
Poor degree class ^a		.56*	.53*		.47*	.45*
Work experience ^a			1.22			1.13
Environment exploration			1.11			1.03
Self-exploration			.88			.90
Guidance seeking			1.13			1.16
Networking			1.99**			1.94*
$\Delta\chi^2$	1.01	6.51	15.5**	3.75	7.57	15.9**
Δdf	2.00	3.00	5.00	2.00	3.00	5.00
$\Delta Nagelkerke R^2$.01	.03	.08	.00	.04	.15

Note. ^a0=no, 1=yes; ^b1=at least one parent holds a university degree; ^c1= at least one parent in high-skilled work; * p<.05, **p<.01.

Table 3 Multiple regression analyses predicting employment quality (N=239) and perceived employability (N=293)

	Employment quality			Perceived internal employability			Perceived external employability		
	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4
	β	β	β	β	β	β	β	β	β
2010 Cohort	-.07	-.16	-.12	.01	-.05	-.02	.10	.08	.08
University announcement	-.01	-.02	-.02	-.05	-.05	-.03	-.07	-.10	-.08
Months after graduation	-.03	-.09	-.11	.03	-.01	-.01	-.03	-.02	-.04
Age	-.14	-.11	-.06	.07	.12	.15	-.04	.04	.09
Male	.06	-.01	.00	.03	-.02	-.06	.10	.04	.02
Term-time work ^a	-.10	-.08	-.07	-.05	-.04	-.07	-.18*	-.18	-.17
Parents' education ^b	.06	.01	-.02	-.02	-.01	.01	-.06	-.11	-.13
Parents' occupation ^c	-.08	-.02	.03	-.04	-.05	-.03	-.05	-.02	.01
New university ^a		.05	.04		-.05	-.02		-.24***	-.24***
Non-professional degree ^a		-.31***	-.31***		-.08	-.11		-.24***	-.24***
Poor degree class ^a		-.15*	-.16*		-.23**	-.26**		.03	.04
Work experience ^a			-.09			.08			-.05
Environment exploration			.18*			.28***			.14*
Self-exploration			.06			.04			.10
Guidance seeking			.21*			.12			.18**
Networking			.02			.25			.06
ΔF	.37	3.21*	2.49*	.28	4.31**	12.96***	1.00	9.30***	4.67***
ΔR^2	.00	.04	.06	.00	.05	.16	.00	.09	.06

Note. ^a0=no, 1=yes; ^b1=at least one parent holds a university degree; ^c1= at least one parent in high-skilled work; * p<.05, **p<.01.

ⁱ Degree classifications used in the UK: 1st(100%-70%), 2:1 (69%-60%), 2:2 (59%-50%), 3rd (49%-45%).