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Leadership Development in Higher Education: A Literature Review and Implications for Programme Redesign

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Key words: Leadership development / literature review / LD programme redesign

Suggested reference:

Dopson, S., Ferlie, E., McGivern, G., Fischer, M.D., Mitra, M., Ledger, J. & Behrens, S. (2018) 'Leadership Development in Higher Education: A Literature Review and Implications for Programme Redesign'. Higher Education Quarterly (Forthcoming)

Abstract

Leadership development (LD) activity and its effectiveness has not been explored rigorously across changing university settings globally. As Higher Education (HE) settings change radically throughout the world, HE professionals are operating in more uncertain environments, and leaders are taking increasingly complex and diverse approaches to their leadership roles. LD activities therefore become important in supporting this highly complex context, yet little is known in the literature about LD and its impact in HE. We examine peer-reviewed work on LD in HE settings globally to understand what may be learned about its content, processes, outcomes and impact. Our results suggest the current literature is small-scale, fragmented and often theoretically weak, with many different and co-existing models, approaches and methods, and little consensus on what may be suitable and effective in the HE context. We reflect on this state of play and develop a novel theoretical approach for designing LD activity in HEIs.

The Changing Nature of Higher Education

Universities globally are facing novel challenges, as they become larger, more complex and multi-functional organisations. In many countries they are moving beyond their traditional core of teaching and research and old assumptions of public funding. They may be becoming increasingly "entrepreneurial" (Etzkowitz, 2004) (Etzkowitz and Leydesdorff, 2000), especially where they have strong science and technology departments.

A recent literature review on new organizational forms in the current UK HE sector (Ferlie and Trenholm, 2017) noted marketization, and globalization, as key meta level driving forces. Developing competitive behaviours and skills, therefore, becomes important for senior leaders. Within a globalised order, however, managing across to new partners and across traditional national boundaries is becoming more important. Digitization within the 'virtual university' is emerging as another major trend, dependent on strong Information and Communication Technology (ICTs) capabilities. Alongside greater competition also lies collaboration, with more strategic alliances, joint ventures and managed networks. These latter developments call for a distinctive, more cooperative and lateral leadership style than traditionally seen within the management of a single vertically integrated HEI.

These long-term developments in the field raise questions about the ability of HE senior leaders to respond to increased institutional complexity. Our specific concern here relates to exploring whether senior HE leaders are being well-supported in addressing these current developments by LD programmes that may need, in our view, to consider issues raised by these broader field-wide developments and if necessary, refresh their content [and approaches](#).

Objectives and Methodology

This paper draws a literature review carried out by the authors [for the Leadership Foundation for Higher Education \(LFHE\)](#) that examined peer-reviewed work on current HE

LD programmes. By LD programmes we mean tailored training and development programmes, not including structured degrees such as MBAs. The study design was a structured review of international work published up to 2016. The finer details of our methodology and research design are presented in our report (Dopson et al, 2016) and briefly outlined in Figure 1 below.

<insert Figure 1 about here>

To summarize, the authors met with a library team to devise an overall search strategy and specific search terms (see Table 1) then applied to [review HE publications across 4 databases](#): ProQuest Abi/Inform, Business Source Complete, IBSS and ERIC. The search was an iterative process, with terms progressively refined to increase the relevance of results. The initial results were appraised through a review of abstracts, each undertaken by a minimum of two academic team members. Abstracts were filtered for their relevance for the objectives of the review; with descriptive and atheoretical papers excluded. They were reviewed for ‘quality’, defined as with a reliable empirical base and/or being theoretically sound. Given very few high-quality articles were returned initially, the search was supplemented by an additional review of 12 journals rated highly by five-year Impact Factor (scoring three and above) [using the same search terms](#).

<insert Table 1 about here>

The [filtered](#) articles were read and scored by team members (where possible, in pairs) across four core domains, namely, relevance to the objectives of the review; appropriate methodology; sound theoretical base; and novelty/interest. Each paper was given an overall score of 1 to 3 (three being the highest). Papers with scores of two or higher were included in the final review. Only 15 papers were included for full review following this process; another 17 were identified from searching references and citations of those selected papers, bringing

the total to 32. Citations were searched using Web of Knowledge, Scopus and Google Scholar.

A review of these papers revealed some limitations; one was a lack of sources exploring the impact of LD specifically in HE. As this was a key domain of interest to us, we then conducted a second, broader search of peer-reviewed work on the impact of LD in general (and not specifically in the HE arena – see [Table 1, group 2](#)), which yielded 37 additional papers.

Our core purpose here is to examine both these sets of international peer-reviewed sources to discover what we may learn about the content, process, outcomes, and impact of LD in HE settings. Although our search was global, the full papers reviewed came from a few countries, namely, Australia, Canada, France, Germany, New Zealand, Portugal, South Africa, Turkey, UK and USA. The research base uncovered was small-scale, fragmented and noncumulative, revealing a paradox – although the HE sector is a knowledge-based industry, it has not studied its own effectiveness rigorously, at least in the LD field examined here. As we were interested in examining *peer-reviewed* publications on LD programmes in HE ([as per the project scoping process](#)), the analysis that follows excludes some seminal core but non-reviewed texts on leadership in HE.

The article is organized as follows: we present a summary of 32 international studies on LD in HE that survived our ‘quality sift first (clusters 1-3 below), followed by results from the second, broader review of peer-reviewed work on the impact of LD in general (cluster 4). We then offer some broader reflections on HE LD and propose a holistic model of leadership in HE to inform the design of future LD. Using the UK HE landscape as an illustration, we conclude by offering an agenda for building up a more robust research base.

Leadership Development in Higher Education: Key Themes

Only a small number of key articles offered clear accounts of methods, data sources and theoretical contribution and survived the analysis of a larger number of papers initially identified in our search. Only 32 papers met our criteria, repeating Bryman's earlier finding (2007) of a very limited research base. The literature also suggests few promising leadership interventions in the sector that have a reliable evidence base and/or are theoretically well-informed. The material reviewed often uses "leadership development" interchangeably with "leader development", creating confusion. Apart from Day (2000), we rarely found any considered discussion of differences between these two distinct concepts. "Leader development" is associated with the development of the organisation's "human capital" (*individual* skills, knowledge and abilities) yet "leadership development" is associated with the development of its "social capital" (building networked relationships among multiple individuals, thus improving organisational effectiveness) (Kark, 2011; Day, 2000). This ambiguity presents challenges for assessment and measurement (Bolden et al, 2008).

The 32 papers fell into three clusters discussed below. A fourth cluster of work (37 studies) emerged from a follow-on search which *specifically* focused on "leadership metrics" as a distinctive topic, also discussed below.

Cluster 1: LD Content

Content specific to HE settings

This sub-cluster contained 11 studies with implications for LD content in HE settings, including literature reviews, empirical work, and novel leadership theories[1]. Bryman's (2007) structured review of peer-reviewed studies on "effective leadership" in HE in the UK and USA suggests 13 aspects of effectiveness, including: (i) a clear sense of direction and a strategic vision; (ii) preparing departmental arrangements to facilitate the direction set; and (iii) being considerate. The generic nature and mutual tension between these indicators leads

Bryman to conclude that converting them into a *list of competences* and teaching them within a LD programme is difficult. In a subsequent empirical study of 24 UK-based leadership researchers, Bryman and Lilley (2009) find their research participants as sceptical of generic leadership competency frameworks, and focussed, instead, on the *context* that shapes leadership styles. [They found the following HE characteristics as key for generating LD content: collegiality; the desire for autonomy; individualism; a prime loyalty to the discipline rather than the employing organisation; and tensions with "difficult" colleagues resistant to management.](#) Debowski's (2015) commentary adds two more core values namely: consultation and respect for staff.

Bolden et al's (2003) review of leadership theories and competency frameworks notes that "a somewhat limited version of "transformational" leadership is being promoted" (p.37), and that there should be a greater focus on how leaders interact with followers within HE ([also see Brown, 2014 on transformational leadership](#)). Yet Angawi (2012) proposes 'Neo Charismatic Leadership', closer to the transformational rather than transactional model, which involves: projecting a vision and enrolling others into it; being sensitive to other people's needs; risk taking; unconventionality; and altruistic/ethical behaviour. Bryman suggests a participative *leadership style* can be effective in HE as it "fosters a collegial atmosphere and [advances] a department's cause" (Bryman, 2007, p.706). Bolden et al's later paper (2014) offer a broader, bottom-up and societally-engaged model of academic leadership where the academic profession as a whole has a role in self-governance and outreach. We believe that an empirically-grounded study of alternative leadership styles ([e.g., see Franco-Santos et al, 2014](#)) and [approaches such as lean leadership and management](#) could offer significant contributions to new LD content for HE.

Bolden et al (2003) acknowledge the present *weak evidence* relating to proposed HE competences, and the need to develop more robust evidence-based frameworks. Hamlin and

Patel (2015), build on Bryman's (2007) work within a French university and similarly stress that empirically-based behavioural indicators (such as those reported in their study) could develop "evidence-based LMD [Leadership and Management Development] initiatives [as they] would likely be more effective than conventional LMD programmes" (p.308). Parrish's (2015) review and subsequent empirical work on Australian academics suggests that emotional rather than just rational intelligence may be an important leadership competence to nurture in the sector.

Content on gender and diversity

A second sub-cluster of 6 studies[2] examined *gender and diversity* in HE leadership: three studied leadership experiences, styles and contexts specific to women: Collings et al (2010) explored women's own perceptions of how formal and informal experiences influence their professional development in New Zealand; Deem (2009) applied a feminist perspective to analyse the possible tension between the principles of excellence and diversity in UK HE, and DeLourdes Machado-Taylor and White (2014) explored the role and leadership style of senior women leaders in universities in Australia and Portugal. The other three studies examined leadership programmes specifically designed for women. DeFrank-Cole et al's (2014) mixed methods evaluation explored a women's leadership initiative in one American university, designed as facilitated group coaching sessions to enable women to "hone their leadership skills, develop concrete strategies to address their individual leadership challenges, and create an engaged leadership community and network" (p.54). Harris and Lebermam (2012) studied the impact of an LD programme for senior women in New Zealand universities that aimed to "examine leadership attributes and reflect on strategies; [and] increase knowledge of a range of management competences" (p.33) relating to tertiary education and research funding.

Although the studies lack rigorous and cumulative empirical findings, they highlight the need to consider implications of greater diversity – a factor that now may be affecting the uptake of LD programmes in HE. These papers also raise the question of follow-up work in supporting and sustaining a more diverse leadership grouping in HE. One interview-based study of a cohort of eight women in an Australian university concluded: "the mid-career women academics are facing workplace relationships that have been institutionally inherited. They are attempting to build on these as they aspire to leadership, which is not leading to vertical promotions. The unconscious gendered views are discussed as a block in developing hard skills" (Gallant, 2014, p.234). An implication is that formalised leadership and skill-based programmes may be more helpful in 'unblocking' such unconscious gendered views rather than experiential methods which do not shift these gendered notions.

Cluster 2: LD Design

This second cluster comprised 11 *empirical studies*[3] in HE settings with the potential to inform LD programme design. These studies reflect an overall felt need for LD opportunities in HE (Morris and Laipple, 2015; Scott et al, 2010; Wolverton et al, 2005; Deem et al, 2007), alongside a recognition that their lack can result in negative effects, for example, leader ineffectiveness and burn out (Morris and Laipple, 2015).

Scott et al's (2010) Australian study suggests programmes should be based on principles of "just in time and just for me" learning; and include face to face and online access to highly performing role holders for comparative learning; alongside case studies and workshops which address situated knowledge and carve out time to do so. Tolar's (2012) US study suggests using mentors as a key design component, while Turnbull and Edwards' (2005) UK study concludes that leading academics is challenging. They suggest programmes need to be attentive to distinct leadership needs at different levels of seniority. They support designing

programmes that focus on the adoption of transformational rather than transactional models of leadership.

Haddon et al's (2015) work on an American academic institution suggests that combining continuous communication and decisiveness may be an effective style in crisis situations (such as funding cuts) in HE. Deem et al (2007), who similarly explored the impact of New Public Management reforms in UK universities, recommend specific domains for the design of development programmes, namely, financial management; culture change; acting as a change agent; dealing with assertive consumers; entrepreneurship; performance management of academic staff and risk management (p.147).

Rowley and Sherman (2003) consider the issue of hybrid [roles](#) in academia [such as research/academic and leadership/management](#), suggesting it is important to distinguish 'willing hybrids' from the 'incidental hybrid' (McGivern et al, 2015), and design leadership programmes that enable them to undertake a longer-term transition to these dual roles and identities.

Akbulut et al's survey (2015) of 700 faculty members examined the leadership effectiveness of departmental heads in a Turkish University by comparing the 'compete' and 'collaborate' functions, indicating the "integration of complex leadership functions is useful for understanding how department heads respond more effectively to varied situations" (p.458), given awareness of such roles "might provide leaders with a profile of effectiveness that can be used to prepare leaders for future challenges" (p.459). Vilkinas and Ladyshewsky's (2012) study of the perceived effectiveness of academic programme directors in Australian universities found directors as weak on integration aspects of their role (learning, change, systems working) and suggest LD activity should seek to increase self-awareness for achieving greater balance [between the roles and responsibilities that leaders put their energies](#)

in. Wolverton et al's (2005) needs assessment informing the design of an LD programme for incoming departmental chairs similarly stressed the need to incorporate learning around role balancing and preparing departmental chairs in advance of taking up posts.

Spendlove's (2007) well-cited paper explored leadership competences at senior managerial levels in British universities, finding leaders needed to retain a self-identity as an academic. An implication, then, was LD models should be designed around sectorally-related characteristics such as academic credibility and visibility rather than by borrowing from other fields (such as Business). Incorporating succession planning processes and strategies into LD was also key.

Cluster 3: LD Outcomes

This cluster comprised 4 studies[4] that addressed the *outcomes assessment* of HE LD programmes. Only one mapped outcomes in a longitudinal evaluation; while the others looked at short- or medium-term outcomes. Chibucos and Green (1989) assessed the impact of the American Council on Education Fellows programme, on the long-term career outcomes of [participants](#). They found that 56% of participating fellows achieved the position of Dean or higher, while a significant number became university presidents. In McDaniel's (2002) later short-term evaluation of an updated version of the same programme in 2000, both content (for example, "demonstrates understanding of issues of academic administration") and communications (for example, "articulates and communicates a vision") related leadership competences were included in a [self-administered and self-assessed](#) learning outcomes framework completed by participants before and after the programme. We believe, however, that such competency-based outcomes evaluations could become unreliable to senior leadership and the complex work typical of the HE sector. Ladyshevsky and Flavell (2011) examined the medium-term impact (6- and 12-month outcomes) of an LD programme

in an Australian university for mid-level programme coordinators by interviewing 10 participants and found one key outcome, sustained up to 12 months, was an increase in "confidence" and empowerment.

Our analysis of this cluster suggests an extremely small set of peer-reviewed work addressing outcomes assessment of LD in HE. This literature lacked both consistently defined measures clearly linked with different aspects of LD, as well a clear analysis of the timeframes within which different kind of outcomes might best be measured. We therefore decided to undertake an additional search specifically focussed on leadership metrics in general, rather than as a distinct topic specific to the HE sector. The key messages from this extensive search are discussed in Cluster 4; but are expounded further in [Dopson et al \(2016\)](#).

Cluster 4: LD Impact

Thirty-seven additional papers were examined in this cluster. Their predominant themes included: exploring the impact of different leadership styles (distributed and transformational) on individual leaders and subordinates[5]; changes in leader traits, skills, behaviours, knowledge and networks from leadership training[6]; and evaluating complex LD outcomes[7]. The methods of evaluation included: summative and formative[8], 360-degree evaluations[9]; and analysis of return on investments[10].

Impact of leadership styles

The literature evaluating the impact of leadership styles extends beyond individual leaders to consider subordinates (Dvir et al, 2002; Kelloway et al, 2000). While a valuable starting point, a more nuanced evaluation of the relationship between LD and the impact on the performance or growth of subordinates is often missing. Some authors reflected that transformational leadership behaviours should be studied as separate sub-dimensions rather

than a unified whole (Hardy et al, 2010; Martin et al, 2012). This literature recognizes that leadership is a contextual, processual, relational social, political and temporal phenomenon (Bolden et al, 2008; 2009). We also argue there is a need for a broader set of theories and methods because the outcomes of LD are not always linear or progressive. This goal may be achieved by studying team and organisational development and effectiveness (Harris et al, 2007; Martineau et al, 2007; Spillane et al, 2001; Spillane et al, 2004), understanding leadership in different cultural contexts (Avolio et al, 2009c), as well as the variable impact of male versus female leaders (Avolio et al, 2009a).

Impact on leader(ship) traits, skills and leader networks

Reflecting the prevailing *leader*-centric focus, the studies examined tried to measure changes in individuals' traits, skills and behaviours (Avolio et al, 2009c; Cummings et al, 2008; Ely et al, 2010), including values, mindsets and (self-) perceptions of self-efficacy (Amagoh, 2009), and how superiors think subordinates developed following leadership training (Abrell et al, 2011). Day (2000) and Day et al (2014) additionally emphasise *leadership* rather than *leader* development as an organizational activity and collective accomplishment. They seek to link "process models with relevant outcomes" (p.79) by defining the functions that are expected to develop because of LD.

Some studies suggested that measuring or evaluating leaderships traits is difficult. Orvis and Ratwani (2010) examine the recent movement towards self-development to supplement formal LD. They show how leaders may grow on a personal and voluntary basis beyond formal requirements through self-development activity (e.g., [structured reflection](#)) and also acknowledge that evaluating such activity can be challenging. In evaluating leadership programmes promoting reflection as a skill, Blacker and Kennedy (2004) find evidence of their overall usefulness but also note difficulties with measurement. Hoppe and Reinelt's

(2010) framework for conceptualising (bonding, bridging) and evaluating (connectivity, health) various leadership networks notes that few techniques have been developed to evaluate outcomes and impact. Ely et al's (2010) literature review on evaluating leadership coaching suggests that very diverse outcome measures, each different for individual clients, makes it difficult to aggregate, compare and evaluate the overall impact of programmes.

Evaluating complex LD outcomes

Avolio et al (2009a) note that LD programmes indirectly affect followers, organisational learning, cultures and communities and suggest that this extreme complexity makes impact difficult to explain. Leskiw and Singh (2007) argue that LD evaluation may not be measurable in quantifiable terms and therefore those evaluating LD programmes need to ask "the right questions", including whether the metrics used to evaluate LD reflect organisational aims and whether these aims can indeed be measured. These studies raise questions about whether the leadership models that LD programmes are based upon, and the measures chosen to assess impact, influence reported outcomes more than the real-world impacts of LD courses themselves.

Yet our review reveals some models that could facilitate evaluation of complex LD programmes. Kirkpatrick and Kirkpatrick's (2006) four-stage model of responses to learning is recommended by Leskiw and Singh (2007). It incorporates a concern for: immediate response, learning, behaviour and impact as part of its wider evaluation framework that can be applied with diverse participants on a variety of issues. McAllan and MacRae (2010) use this model to evaluate learning from an LD programme in a large, local authority social work service, employing various techniques such as: knowledge tests on taught inputs; semi-structured questionnaires; one-to-one interviews with participants, peers and managers; and focus groups. Yet King and Nesbit (2015) are critical of the Kirkpatrick model as such

evaluations are superficial. Comparing the results of the Kirkpatrick model in a quantitative-post programme evaluation with their own longer-term qualitative approach, the latter uncovered the emotional impact of the learning experience and explored, more deeply, links between the behavioural and cognitive changes reported.

A second model, suggested by Bolden et al's (2003) review, draws on Rodgers et al (2003) and considers leader(ship) development initiatives along two dimensions – processes (individual or collective) and approaches/models (prescriptive or emergent). They find an almost exclusive emphasis on the individual-prescriptive type, but not enough attention paid to the collective-emergent type. Russon and Reinelt's (2004) third model emphasises the usefulness of 'programme theory' (p.105) – a description of how and why a set of activities is expected to lead to outcomes and impacts. Given this 'theory of change' (p.105), evaluation seeks to gather evidence to prove or disprove it.

Evaluation methods

Ely et al's (2010) review of how leadership coaching might be evaluated suggests both summative (final outcomes) and formative evaluations (interim processual and developmental markers) methods as beneficial. Their three recommendations for undertaking such evaluations (p.35) are: (i) using multi-source data (from subordinates, peers and superiors and measures of business impact); (ii) measuring changes in the attitudes, performance, and retention of clients and their subordinates; and (iii) "distal outcomes", observable months or even years after the intervention. Other authors also support using multisource data, particularly 360-degree feedback, in evaluating leadership and LD outcomes. Alimo-Metcalfe and Alban-Metcalfe (2004) investigate how to maximise development opportunities for head teachers in an LD programme and find 360-degree feedback as extremely valuable. Day et al (2014) and Solansky (2010) support using 360-

degree feedback to enable leaders to understand their strengths and weaknesses, instead of only self-reports. Finally, Avolio et al (2010) seek to evaluate the return on investment in LD, finding it ranges from negative up to 200%, depending on organisational climate. However, we remain sceptical about the value of such approaches, given the complex nature of HE leadership.

Lessons for LD Interventions for the HE Sector

The HE empirical papers reviewed operate at different levels of analysis, preventing ready aggregation. However, the collective insights yielded by our review are, in our view, disappointing. These studies are too often small scale, non-cumulative and only weakly-theorized (apart from a few interesting studies in cluster 1). They often have idiosyncratic concerns rather remote from the bigger challenges facing HEIs addressed in the introduction. They are often disconnected from a social science base.

What is particularly striking is the lack of reference to the (arguably, rapidly changing) purposes of HE in designing LD programmes. The leadership tasks of university leaders, along with the skills, behaviours and values needed, should be driven by core purposes. These, in turn, will vary by different country contexts. In the UK (the context we are most familiar with), HE organisations have different purposes, given increased institutional variation after the post-2010 policy to liberalise the sector. New private and not-for-profit providers are entering the system and novel organisational forms such as networks, consortia, hybrids or mergers/acquisitions are appearing. Entrepreneurial skills will be critical in leadership work in these settings, while for leaders in traditional research-intensive settings, recruiting, retaining and motivating academic research talent will be key. In financial constraint and crisis, more command and control leadership approaches may be required

(Grint, 2010), whereas more collaborative and "adaptive leadership" styles (Heifetz, 1994) are needed in growth-based modes and contexts.

Teasing out long-term effects of policy and organizational shifts since 2010 on UK HE management purposes, tasks and LD needs, is an important future task which these papers do not really address. One should recognise and work with these meta-level trends and recognise increasing differentiation within the sector in designing and tailoring LD programmes. Senior managerial competences in commercially-orientated areas (such as globalisation, strategic management, brand building, marketing and quality assurance) are likely to be of rising importance in more market-orientated contexts, but these need to be strongly balanced with leadership practices capable of supporting academic "talent management" and securing effective collaborations with many external players (Ferlie and Trenholm, 2017), including globally as well as locally.

Leadership theory is clearly a contested space (see a thorough recent review by Athanasopoulou and Dopson, 2015). While early theories took an individualistic perspective by focussing on the characteristics of successful leaders, later theories considered followers and wider situational circumstances. The literature suggests a shift towards distributed leadership, seen as a group activity that works through and within relationships rather than individual actions. Accordingly, a broader reconceptualization is needed of what leadership and LD involves in HE, moving beyond a historical focus on *individual* leaders (narrow career outcomes) to considering wider leadership processes in HE settings as inherently distributed, relational and contextually influenced (Day et al, 2014; Bolden et al, 2009; 2008; Bryman, 2007). Thus, the accomplishment of leadership (rather than a focus on identified leaders) should be the core focus of LD, raising questions about the relationship between LD and "followership" (Uhl-bien and Riggio, 2014).

Bolden et al's (2008) five dimensions of leadership (*personal, social, structural, contextual, and developmental*), developed within the UK HE context, helps us reconceptualise leadership in HE. Whereas leadership clearly includes individual leaders' *personal* attributes (such as academic credibility and knowledge, vision, values and ethics), it significantly also includes *social* and *developmental* processes (mentoring, role modelling, teambuilding, networking, developing trust, delegating and succession planning) (Jarvis et al, 2013; Hoppe and Reinelt, 2010; Spendlove, 2007; Hargreaves and Fink, 2006), together with considering organisational *structures* and *contexts* intrinsic to leadership practices.

Leadership and LD may produce outcomes that only become apparent at a distal point (Ely et al, 2010). Indeed, HEI leadership typically involves organisational stewardship that seeks to enhance and preserve HEIs for future generations. Potentially, the consequences of HEI leaders' initiated changes may come into fruition only after those leaders have moved on from their positions.

To increase the theoretical and practical connectedness of the literature, we suggest an alternative theoretical perspective that views HEIs as "knowledge organisations" and academics as "knowledge workers". This perspective relates to literature in organisational studies on the knowledge-based sector, involving management consulting firms, law firms, think-tanks, universities, governments, and other knowledge-intensive settings (Fischer et al, 2016). HEIs are here a "talent management" business whose knowledge workers are mobile and hard to control: the nature of their work is hard to specify and monitor; they operate with broad autonomy and discretion (including, leaving organisations if they are unhappy); and they dislike being directly led (Goffee and Jones, 2007; Alvesson, 2001). To provide effective leadership here, individual attributes play a significant role in eliciting academic credibility and intellectual and personal respect. However, another crucial HEI leadership skill is the ability to create organisational environments in which knowledge workers can

thrive by shaping the culture, incentives, systems and resources that they need (Goffee and Jones, 2007). Here culturally-laden forms of control are indicated where academic knowledge workers may discipline themselves and self-regulate (Kunda, 2006). Alvesson and Spicer (2012) suggest leaders in such settings may accord much operational autonomy to knowledge workers, but only given a strong and positive corporate culture (and, one would add, strong incentives) shaping what they do.

What implications does this theoretical approach have for designing LD activity in HEIs?

We suggest, firstly, that effective LD design needs to better navigate the inter-relationship between HEIs at an organizational level and the individual needs, roles and careers of individual academics. In their ethnographic study of LD programmes for senior leaders Fischer and White (2014) found more effective examples of LD programmes reflecting a similar "binocular focus" which combined intended organizational outcomes (including intended strategic trajectories over time), with LD participants' personal motivations, expectations and experiences (including leadership ambitions). Such LD programmes should reflect the distinctive organizational settings. We suggest that they also need to develop participants' future strategic and academic leadership capability by establishing strong coherence and complementarity between HEI's (necessarily changing) purposes and eliciting individual academics' confidence, respect and support for HEIs' intended wider developments.

Secondly, distributed, networked and team-based leadership abilities become increasingly important, strategically, given the need to lead complex stakeholder relations, collaborative ventures and partnerships. Thus, distributed leadership models imply that LD design should seek to develop participants' collaborative leadership skills across traditional organizational

boundaries and departmental 'silos'. Governance systems could also be likely to include greater representation from senior academic but non-managerial staff than apparent in UK universities today, which have adopted the governance model of the Anglo-Saxon PLC (Buckland, 2004). These rebalanced governance systems may also need to be supported by LD programmes. Studying such novel HE settings emerging with liberalization (Ferlie and Trenholm, 2017), their governance systems and associated leadership sources and styles to see whether they do act as 'disruptors' of a highly institutionalised sector, along with exploring any implications for generating novel LD content is also key.

Thirdly, LD design should draw more strongly on social science knowledge which regards leadership and LD as inherently situated and embedded within particular work settings and contexts. Overall, we were struck by the absence of studies that engaged with adult learning and wider literature on the impact of leadership education. While papers reviewed focused on the content of formal programme curricula and post-delivery metrics, there are further insights to be gained through engaging with social science-based studies. In particular, we suggest LD design could take account of the significant inter-relationship between LD and wider organizational development (OD) strategies within HEIs.

Practically, creating learning forums and 'offline' spaces (such as action learning sets) that informally debate and draw upon leadership knowledge within particular contexts could stimulate innovative and alternative approaches to leadership work. Whereas such forums are best when expertly facilitated, there are also examples of self-managed forums (Dopson et al, 2013). Indeed, the relatively informal dynamics of forums in relation to coaching, mentoring, and informal supervision work provide an arena in which to share and off-load concerns about difficult and often stressful day-to-day professional work; such forums emphasise subjective "formative spaces" where less dominant narratives and perspectives can be articulated, reflected upon and worked through (McGivern and Fischer, 2012). To establish

such LD resources in ways that complement and support HEIs' long-term future, they should support multi-professional (rather than uni-professional) learning forums. By bridging the boundaries between different epistemic communities and knowledge paradigms, they embody the more blended focus we advocate to explore interactions between organisational and 'real life' work issues.

Finally, a more "sustainable leadership" (Hargreaves and Fink, 2006) approach indicates a form of distributed leadership in HE which implies: role modelling, delegation and succession planning, together with senior-level mentoring and support. 'Designing-in' sustainable leadership to contribute to longer-term career pathways is critical; so, LD programmes should be responsive to and help navigate various career stages. A progressive LD approach would address a gap concerning staff members' varying desires for career advancement in HEIs (Storey, 2004). In particular, it should be flexible and responsive to participants' transition points, including possible 'crucible moments' (Bennis and Thomas, 2002) that provide critical moments for potential learning and development. Such designs require careful calibrating and monitoring to balance formal theories and constructs, practice-based techniques, and subjective dimensions of leadership within 'sense-making' approaches to LD (Fischer et al, 2015). This approach would provide sufficient space to explore developing leadership identities, emotional responses and personal reactions important in longer-term processes of LD (Fischer et al, 2015). For similar reasons, while the literature on the impact of coaching in organisations remains embryonic (Athanasopoulou and Dopson, 2015), it is our experience that leadership work is a lonely activity and that targeted executive coaching that encourages such reflection and experimentation can prove highly developmental.

Thus, the designers of LD interventions in HE should engage with some core questions (see Figure 2). Reflecting on these questions will also be useful for higher educational researchers,

providers of LD for HE, and the top management of universities who wish to think about LD in HE alike. This would entail, firstly, to consider the purposes of an HEI (which will inevitably vary), drawing upon these reflections to determine the models of leadership most appropriate for each organisation (rather than promoting a single model of leadership and LD). Having defined an HEI's purposes and determined appropriate models of leadership, we can then design and embed LD programmes that will support such leadership capacity over time. Such LD work can be specifically evaluated in relation to the HEI's specific purposes. Both LD activity and its evaluation are likely, in turn, to raise new questions that should help HEIs to refine (and even re-determine) their purposes, leading to further iterations and adjustments between LD and OD over time.

<insert Figure 2 about here>

Conclusion and Future Research Agenda

HE-based LD programmes are absorbing substantial time, attention and resource so they should be better investigated than at present. Our search suggested the current literature base is small-scale and fragmented. Notably, there are few published, large-scale, empirically-informed studies which explore the practices, content and (more ambitiously) the long-term impact of the many LD programmes in HE. Moreover, the studies reviewed were often localised, weakly-theorised and disengaged from wider or recent sectoral developments. We now suggest candidate research projects exploring LD programmes in UK HE in greater depth, mindful that in the long term they should lead to more international research.

One research project should be an initial stocktake of the "state of the national field" as a ground-clearing exercise. This early study should collect available web-based texts from all UK HEIs that outline their LD activity and subject them to content analysis. Figures on LD spend, and a list of LD providers would be useful, where available. A set of semi-structured interviews with LD leads in local HEIs could unpick and explore the core models in use.

Secondly, we found little literature that explores the impact of LD programmes at different career stages for UK HE leaders and longer-term implications for career advancement. The national ambition of Chibucos and Green's (1989) American study stands out as a rare and laudable example. A longitudinal UK cohort study (perhaps using surveys, focus groups and interviews) tracking individual career and wider personal outcomes over time after participation in LD programmes is a second suggestion. We understand that the UK's Leadership Foundation for Higher Education is now supporting such studies.

Thirdly, we call for more processual, team-based and relational studies of LD programmes which would be consistent with some academic and social science literature. Some papers reviewed did generate argument about the still distinctive nature of leadership in academic settings (Bryman, 2007; Bryman and Lilley, 2009). Other authors developed a model of leadership that went beyond simple individualistic and charismatic accounts. Day et al's recent review (2014), highlights LD activity as multilevel and longitudinal in nature. Yet few UK HE studies explore leadership processes in multilevel fields. We assert that HE leaders often operate within teams, relate to different followers and have to be understood within wider organisational and historical contexts.

A further study should take a longitudinal, processual and comparative case study-based approach in tracking a desired strategic change or organisational transformation in an HEI that has been supported by a large-scale investment in LD activity. The study should ask:

how do we assess the long-term impact of such programmes in their wider organisational context within a concrete case of desired major change? Methods might here include documentary analysis, observation at meetings and semi-structured interviews with multiple stakeholders. There should be a systems-level perspective used and attention paid to how LD programmes interact with other forces for change/inertia/resistance. The study should have a national level of ambition with a large group (8 -10) of purposively-sampled HEIs (for a comparator study in UK health care, see Pettigrew et al, 1992). One dimension for HEI selection might well be different local approaches to LD activity. Geographical variation (as Scotland and Wales are seen as less market-minded than England) would be important.

Finally, exploring the nature and impact of LD programmes in some novel and still emerging organizational settings highlighted earlier would be interesting. Do the slowly growing number of for-profit and not-for-profit HEIs display distinctive leadership styles? Is there a growth of a professional partnership model? Do these new settings create or buy-in distinctive LD programmes (or do they still use standard and public-sector orientated programmes)? How does one lead in a network, consortium or a virtualised and international alliance and how are leaders in such novel academic settings developed? If we see academics as ‘knowledge workers’, we must examine the implications for senior-level leadership styles at the top of HEIs, especially in research-intensive Universities where academics may have substantial external research reputations which they can use as intellectual capital.

(1) Angawi (2012), Bolden et al (2003), Bolden et al (2014), Bryman (2007), Bryman and Lilley (2009), Debowski (2015), Hamlin and Patel (2015), Jarvis et al (2013), Owusu-Bempah (2014), Parrish (2015), Zuber-Skerritt and Louw (2014)

(2) Collings et al (2010), Deem (2009), DeFrank-Cole et al (2014), DeLourdes Machado-Taylor and White (2014), Gallant (2014), Harris and Lebermam (2012)

(3) Akbulut et al (2015), Deem et al (2007), Haddon et al (2015), Morris and Laipple (2015), Rowley and Sherman (2003), Scott et al (2010), Spendlove (2007), Tolar (2012), Turnbull and Edwards (2005), Vilkinas and Ladyshevsky (2012), Wolverton et al (2005)

(4) Chibucos and Green (1989), Ladyshevsky and Flavell (2011), Marshall (2012), McDaniel (2002)

(5) Avolio et al (2009a; 2009c), Bolden et al (2008; 2009), Dvir et al (2002), Gentry and Martineau (2010), Hardy et al (2010), Harris (2008), Harris et al (2007), Kelloway et al (2000), Martin et al (2012), Militello & Benham (2010), Spillane et al (2001; 2004)

(6) Abrell et al (2011), Amagoh (2009), Avolio et al (2009b; 2009c), Blackler and Kennedy (2004), Cummings et al (2008), Day (2000), Day et al (2014); Ely et al (2010), Hoppe and Reinelt (2010), Lopes et al (2013), Orvis and Ratwani (2010)

(7) Avolio et al (2009a), Bolden et al (2003), King and Nesbit (2015), Leskiw and Singh (2007), McAllan and MacRae (2010), Russon and Reinelt (2004), Simmonds and Tsui (2010)

(8) Ely et al (2010)

(9) Alimo-Metcalfe and Alban-Metcalfe (2004), Solansky (2010), Day et al (2014)

(10) Avolio et al (2010)

(6149 words excluding abstract/references; 8682 words including abstract/references)

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Table 1: Structured review search strategies used at Stage 2 of structured review process

Group	Search strategy	Search terms				Sources
1	S1	Leadership	Interventions Developments Programmes Activities Training	Higher education		(i) Databases: ProQuest Abi/Inform, Business Source Complete, IBSS and ERIC
	S2	Leadership	Results Impacts Effectiveness Outcomes Evidence	Higher Education		
	S3	Leadership	Interventions Developments Programmes Activities Training	Higher Education	Metrics Tools Quantitative Qualitative Systematic reviews	(ii) Additional review of 12 high Impact Factor journals (3 and above)
2	S4	Leadership	Interventions Developments Programmes Activities Training	<not limited to Higher Education>	Metrics Tools Quantitative Qualitative Systematic reviews Evaluation	Databases: ProQuest Abi/Inform, Business Source Complete, IBSS and ERIC

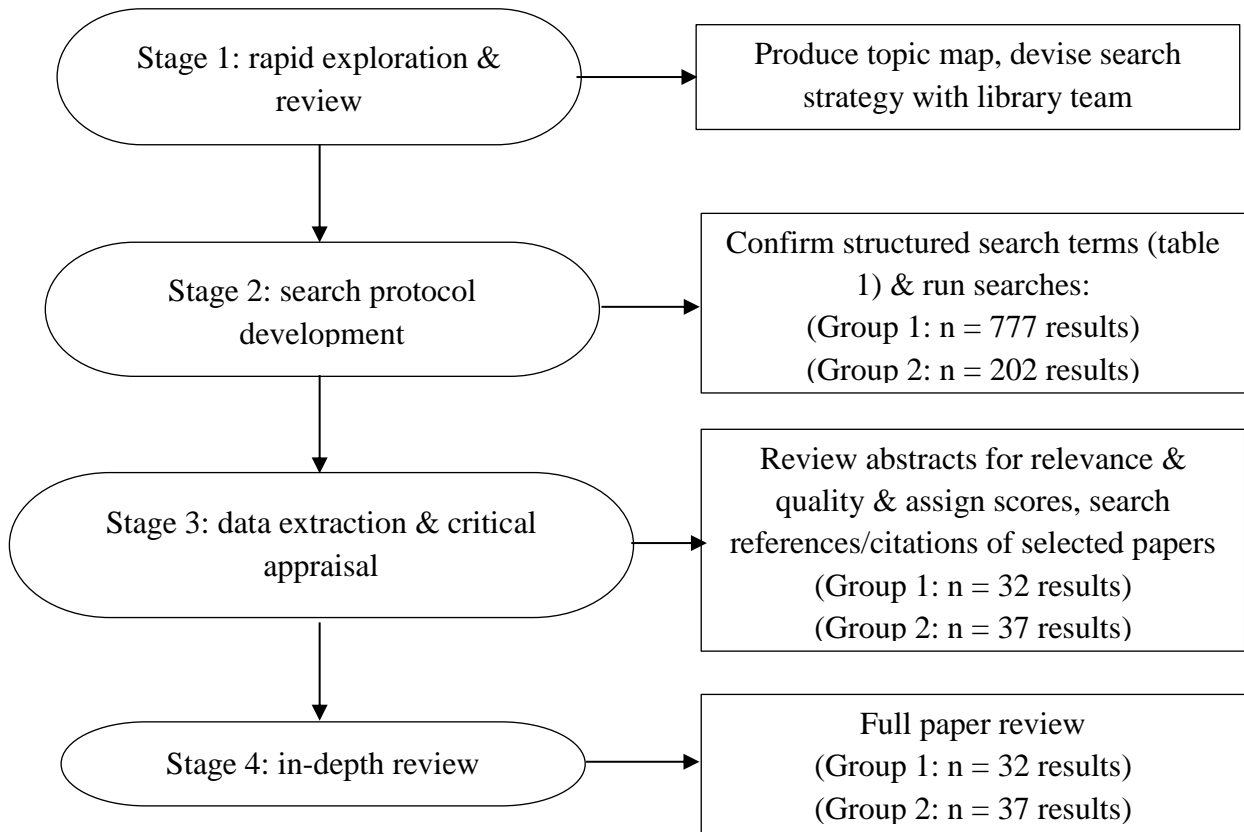


Figure 1: Structured review methodology

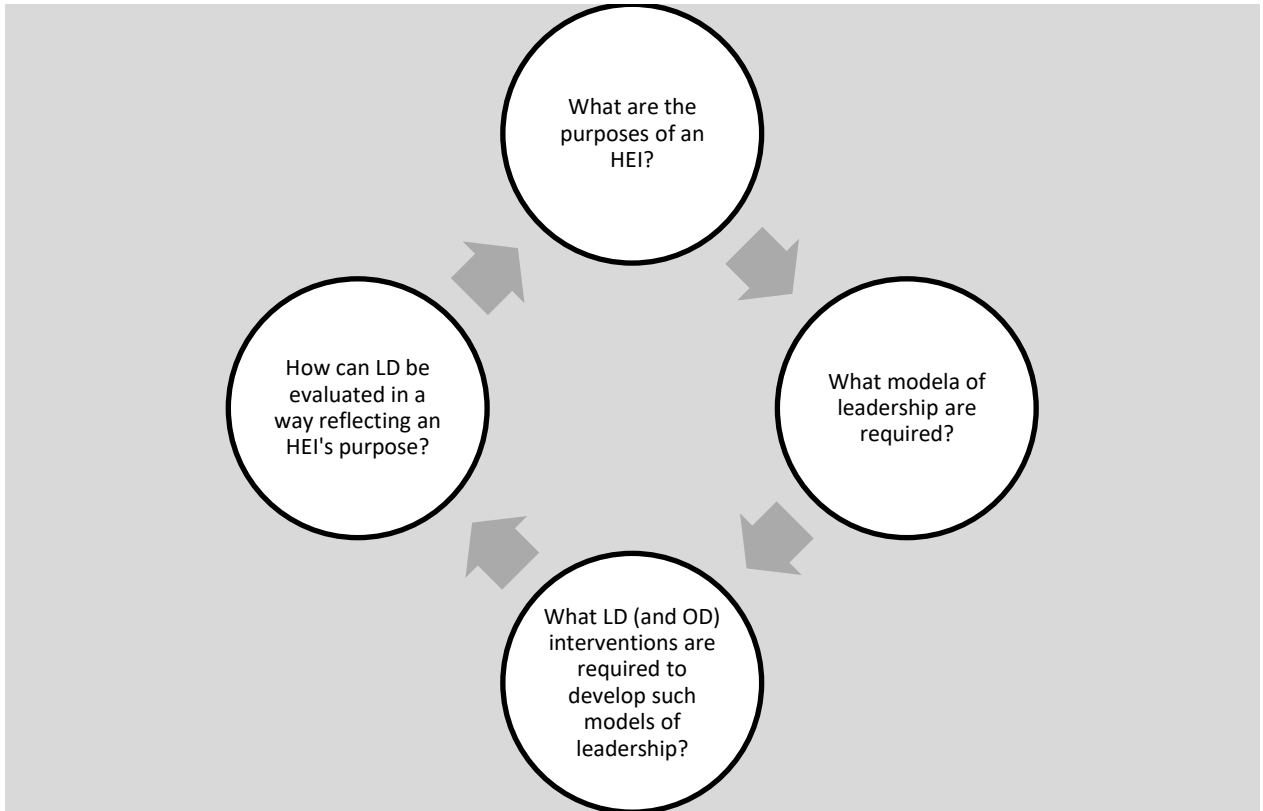


Figure 2: Key questions for leadership development interventions