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The Role of HRD in Bridging the Research-Practice Gap: The case of Learning and Development

Abstract

An enduring challenge for HRD is ensuring academic research achieves impact on professional practice. We have located this research within debates about the research-practice gap. To investigate this challenge, we analyse case studies of academic impact from all disciplines submitted to the United Kingdom's 2014 research assessment exercise (REF 2014). We found that Learning and Development was a primary focus of significant number of impact case studies submitted across all disciplines compared to other areas of HR and HRD. We also found that Learning and Development was a key path to Impact. These findings reveal that Learning and Development in a work context plays a pivotal role in helping researchers irrespective of discipline achieve impact. Our findings therefore speak to the research-practice gap across academia. We conclude by considering the potential role for HRD in generating impact.

Key words: HRD, impact, Learning and Development, research-practice gap, REF 2014

The Role of HRD in Bridging the Research-Practice Gap: The case of Learning and Development

Introduction

Human Resource Development (HRD) is a scholarly field that maintains close ties to practice (Bierema, 2009). While debates about the definition of HRD continue, evidenced through scholarly exchanges that have taken place in this journal and elsewhere (Lee, 2001; Swanson, 2001; Ruona, 2016) there is a general consensus about its practical orientation, with a recent analysis of the literature concluding that HRD's defining attribute was its contribution to the host system (Wang *et al*, 2017). The desire for practical impact from HRD scholarly activity is underlined by The Academy of Human Resource Development's (AHRD) vision of 'leading human resource development through research', and its mission to 'foster research-practice linkages' (AHRD, 2019). Given its historical focus on the development of workers and organisations (Bierema, 2009) HRD would seem well placed to translate research to practice and achieve societal impact. However, HRD scholarship has been criticised for lacking practical relevance (Stewart, 2007, Ghosh *et al*, 2014).

This paper contributes to these debates by drawing on evidence from the evaluation of research and practice in the UK Research Excellence Framework (REF) to explore how Learning and Development, one core activity within HRD (McLean and McLean, 2001), enables impact of research on practice. It reveals that focusing only on research generated within HRD's traditional disciplinary homes, and on HRD scholars solely as producers of research, underestimates the role of HRD and particularly Learning and Development in

overcoming the research-practice gap. Furthermore, it indicates that HRD, in the form of Learning and Development interventions, is already answering calls to ensure that research has impact beyond organisational boundaries. Finally, it reveals that wider stakeholders have a key role to play in evaluating the impact of research on practice, and that facilitating this represents an additional significant role for HRD.

REF 2014 is the latest iteration of the assessment of the quality of research in UK universities that has been applied every five years or so since 1986 in varying forms and with varying names. Its approach has had global significance through influencing similar efforts in, for example, Australia, New Zealand, Hong Kong and many European countries (Hicks, 2012). Assessment is based on written submissions from university departments and is organized around units of assessment (UOA), which broadly correspond to academic disciplines (REF 2014). In addition to assessment of outputs of research such as books and journal articles and research environment, a new element of assessment was introduced in REF 2014, the impact of research on 'the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia' (REF2014, 2011, p.26). This was evidenced in impact case studies written by the submitting institution. The inclusion of this element brought the bridge between research and practice to the fore and provided an opportunity to analyse how the research-practice gap may be overcome.

Previous research on impact in the UK 2014 REF found the most frequently used words across all impact case studies included 'training' and other words commonly associated with Learning and Development (King's College London and Digital Science, 2015, p. 63), suggesting a number of cases from diverse disciplines utilised Learning and Development interventions to create impact (Stewart and Sambrook, 2017). Moreover, this study's

findings illustrate that across all disciplines in the 2014 REF, Learning and Development occurred more frequently as either the subject of, or vehicle for, impact in comparison with other areas of HR or HRD. The study's focus on Learning and Development is therefore a consequence of those empirical findings and also reflects Learning and Development's status as a core activity within HRD in most countries (McLean and McLean, 2001).

HRD scholars in British universities tend to be located in business schools, unlike in North America, where they tend to be in schools of education. HRD scholarship undertaken within UK business and management schools was under-represented in the UK 2014 REF assessment exercise (Stewart and Sambrook, 2019). However, given the multi-disciplinary nature of HRD (Chalofsky, 2004), it might be expected that academic research from disciplines outside HRD and business and management more broadly may demonstrate impact on or through HRD. This study therefore examines the role of Learning and Development in achieving impact on practice in all disciplines, and argues that through Learning and Development HRD can play a pivotal role in achieving impact by academic research, within and beyond the business and management field.

We therefore seek to answer the question: what is the role of Learning and Development in bridging the research-practice gap?

The paper is structured as follows. First, we review relevant literature. Then we analyse the contribution of Learning and Development to the achievement of academic impact claimed in the 2014 impact case studies, and compare this to the contribution claimed for other fields of HR and HRD. Finally, we consider the implications of the above for HRD scholars and practitioners.

Literature Review

The Research Practice Gap: the case of HRD

Our original intention was to focus on the research-practice gap in the field of HRD, examining to what extent HRD research impacted on HRD practice. To underpin this, we reviewed literature regarding the research-practice gap in general, then funnelled down to consider this in the context of management, and finally the research-practice gap in HRD (with a focus on HRD rather than HR). However, as our findings demonstrate, there was limited evidence of HRD research impacting on practice. Rather, HRD's key role within REF2014 appeared to be helping to overcome the research-practice gap in other disciplines, by using various Learning and Development interventions.

Various reasons underpin the research-practice gap in general. It is argued that researchers prefer producing knowledge than translating and disseminating it (Van de Ven & Johnson, 2006), and have incentives to produce research (Khurana, 2007) rather than engage with practitioners.

Turning to management, Bansal et al (2012) note that management research seldom resembles management practice and although this gap is recognized and lamented, there is little discussion about *how* it can be bridged. Various activities have been proposed to bridge the gap, such as evidence-based management (Pfeffer & Sutton, 2006), engaged scholarship with practitioners (Van de Ven, 2007), and relational scholarship through academic-practitioner conversations (Bartunek, 2007). Bansal et al (2012) argue that the gap endures because of the inherently paradoxical nature of research and practice, where researchers seek precision and practitioners seek simplicity, and argue that bridging this gap

is beyond the capabilities and scope of most individuals. This requires the creation of intermediary organizations, such as networks with intermediaries (brokers), that can better align management research and practice.

How is this gap manifest in HRD? HRD as an academic discipline is represented in various scholarly bodies, such as the US-based Academy of HRD (AHRD) and the (European) University Forum for HRD (UFHRD), with imperatives to produce research. From a professional practice perspective, HRD forms an important part of the wider human resourcing profession, through bodies such as the American Society for Human Resource Management (SHRM) and the UK Chartered Institute for Personnel and Development (CIPD). These distinct bodies themselves raise potential theory-practice tensions more widely. On one level, there are tensions between (academic) HRD education and (practitioner) professional development to achieve competency and credibility to enhance organisational practice. To achieve this, practitioners might be tempted to court consultancy firms offering simple, and easily accessible best practice advice, supported by minimal evidence. Yet, a theory-based approach can be hard to digest, especially when scholars are striving for academic promotion and tenure expectations through 'high quality' research publications. Not only might the research be difficult to digest, it might also lack rigour. For example, Garavan et al (2019) reviewed empirical quantitative studies investigating the training and organizational performance relationship and found significant validity threats that question the methodological rigour of the field. They recommend enhancing methodological rigor to generate research findings that can better inform the decision-making of HRD practitioners, and help them achieve credibility.

For decades, there have been calls to close the research-practice gap in HRD (Short, 2006, Short et al, 2009), for example through professional partnerships (Hamlin et al, 1998), Mode 2 research (Gray et al, 2011) and evidence-based management (Gubbins and Rousseau, 2015). Some scholars note a growing 'relevance to and engagement [of HRD research] with practice' (Stewart, 2008, p. 94), and research into knowledge gaps amongst HR and HRD practitioners in the U.S., The Netherlands and Australia found that more were aware of current theory in relation to HRD than other HR functions (Rynes *et al*, 2002; Sanders *et al*, 2008; Carless *et al*, 2009). Nevertheless, scholars caution that academic research in HRD can still focus too much on esoteric academic debates and not enough upon the issues of relevance to practitioners (Stewart, 2008). As with the general research-practice gap, Jacobs (2014) argues that HRD researchers and practitioners have different starting points; the former seeking to understand the world as precisely as possible, and the latter seeking to solve immediate problems. Ghosh *et al* (2013) also found gaps between research published in AHRD sponsored journals and issues of importance to HRD practice.

Other scholars have questioned the nature of the impact HRD scholarship should have (Trehan and Rigg, 2011), criticising its organizational focus (Elliott, 2016). It has been argued that HRD should not only be concerned with its impact on the performance of specific individuals and organizations, but also on stakeholders outside the organization (Baek and Kim, 2014).

One factor relevant to our aim is HRD's multi-disciplinary nature (Rigg *et al*, 2006). Much of the empirical research into the research-practice gap focuses only on specific HRD related journals. As researchers acknowledge (see for example Ghosh *et al*, 2013), it is possible that research published in other journals may address issues of interest to HRD practitioners. The

boundaries between HRD and other practitioners are also unclear (Stewart and Sambrook 2012). It may not only be designated HRD practitioners who actually practise HRD. When Jacobs (2014, p. 15) argues that HRD researchers require ‘an understanding of the major players involved in the [HRD] process’, it is clear that these include more than just HRD practitioners. We therefore explore HRD’s role in delivering impact from broader non-HRD disciplines and on other functional areas.

Research on the impact of research on practice more broadly has suggested that Business and Management in general has a broker role, linking the wider university with the external world of policy and practice (Ferlie *et al*, 2016). Given that the professional practices of Learning and Development have much to say about networking, involvement, acting as broker and, specifically, achieving behavioural change among groups of people (Stewart and Sambrook, 2017) we propose that HRD, and specifically Learning and Development, may also play a broker role in achieving impact. However, given that much of the literature on the research-practice gap in relation to HRD focuses on the gap between HRD scholars and their publications, and HRD practitioners and their publications, it remains unclear what role if any HRD, and specifically Learning and Development, may play in bridging the research-practice gap more broadly. Our study addresses this important gap.

Measuring the Impact of Research on Practice

While relatively nascent (Milat *et al*. 2015), research on assessing the impact of academic research on practice is at a point where lines of inquiry and debate are beginning to be

drawn; for example, regarding the appropriateness or otherwise of bibliometric measures and the relative effectiveness of various alternative assessment frameworks (Penfield *et al*, 2014). As Milat *et al* (2015) point out, there is in academia, as elsewhere, a propensity to count (i.e. value) what is measurable rather than to measure what counts (i.e. what is valuable).

This reliance on what is easily measurable is partly a function of the emerging nature of research into, and understanding of, the assessment of research impact (Milat *et al*. 2015). They and others (MacIntosh *et al*, 2017) point out the complexity of measuring and assessing the impact of academic research on practice. This complexity arises in part from the varying purposes of assessing impact (Morton, 2015), which can be related to differences between stakeholders with interests in both research itself and in assessment of impact (Aguinis *et al*, 2014). For example, researchers, funders, policy makers, end users and beneficiaries of research have different interests and so value different criteria. These varying criteria lead to emphasis on different meanings and measurements of impact. It is therefore argued that impact will be more likely if stakeholders are involved in the research process, and more clearly evidenced if stakeholders are involved in the assessment of impact (Currie *et al*, 2016).

Purpose and Specific Research Aims

Given the complexity of assessing academic impact, and HRD expertise in the evaluation of interventions as part of its Learning and Development remit, our purpose is therefore to ascertain the role of Learning and Development in bridging the research-practice gap and ensuring the achievement of impact from academic research. In order to do so we have the following aims:

- to analyse the role claimed for Learning and Development in overcoming the research practice gap across all academic disciplines;

-to compare the role claimed for of Learning and Development in overcoming the research practice gap with that of other areas of HR and HRD.

Methods

This paper is based upon analysis of the impact case studies available from the REF2014 impact case studies database (REF2014, no date). As our aim is to analyse the impact *claimed* in the REF case studies, an interpretivist approach is adopted (Saunders, Lewis and Thornhill, 2016). The research consisted of two phases, which are discussed separately below.

Phase one

In this phase, two coders undertook content analysis of the population of 6637 qualitative case study summaries across all UOAs searchable on the database. First, this identified cases where HR and HRD, was the subject. Second, it identified cases where HR and HRD was a vehicle for delivering impact, even if the subject of the underpinning research and the impact was in another discipline (for example, where the subject was development of a new medical treatment, but the impact was achieved partly through training medical staff). In some cases HR and HRD was both the subject of the case and also the vehicle for impact delivery, and was coded accordingly against both.

To enable comparison between the different fields of HRD and HR in achieving impact, these case summaries were then coded according to the eight professional areas defined by the

CIPD (CIPD, 2017): Organisation Design, Organisation Development, Resourcing and Talent Planning, Learning and Development, Performance and Reward, Employee Engagement, Employee Relations, Service Delivery and Information. There were instances where cases were coded to more than one CIPD professional area, because they involved more than one HR or HRD function as their subject or vehicle of delivery. Cases were only identified and coded to these areas when workers, whether paid or unpaid, were the focus.

A low inference system of coding was adopted to improve reliability (Robson, 2002). Cases where it was not clear if HR or HRD was involved were excluded by the first coder. This means that, if anything, the data presented here under-represents the involvement of HR and HRD.

To check the coding system a pilot sample of 50 case summaries was coded by the two coders together. Having established the effectiveness of the coding system, the remaining case summaries were then coded by the two coders independently. To check inter-rater reliability, those coded as involving HR or HRD in a random sample of 1976 case summaries (29.8% of the total) were independently checked post-coding by the other coder. Of 70 cases in the sample coded as having HR or HRD as their subject, all but 3 (4.3%) were agreed by the second coder. In each of these 3 cases the second coder agreed the code ascribed but added an additional code. Of the 303 cases in the sample coded as using HR or HRD as a vehicle to deliver the impact, all but 6 (2.0%) were agreed by the second coder. In 3 cases this again involved the second coder adding an additional code; in the remaining 3 cases the second coder assessed that HR or HRD had not been used as a vehicle so the code was amended.

Analysis was undertaken in Excel to identify frequency distributions. This revealed that Learning and Development was much more frequently cited as a subject of and/or vehicle for impact than the other CIPD professional areas, suggesting that this HRD activity may be particularly significant for impact. Moreover, although HRD scholars in the UK tend to be located within business schools, Learning and Development was claimed as a subject of and/or vehicle for impact in a large number of cases from outside the REF2014 Business and Management UOA.

Phase two

Given the apparent significance of Learning and Development's role, phase two of the research explored the nature of Learning and Development involvement claimed outside the B&M UOA. We analysed one full case study using Learning and Development as a vehicle for impact from the four non-B&M UOAs (excluding Education) where the number of cases claiming to use Learning and Development in delivery of impact was greatest: Sport and Exercise Sciences, Leisure and Tourism; Psychology, Psychiatry and Neuroscience; Social Work and Social Policy, and Theology and Religious Studies. The Education UOA was excluded since education is seen as a Learning and Development intervention (Sambrook and Stewart, 2010) and in the United States is often the disciplinary home of HRD, and the focus of phase two was to explore HRD involvement outside the HRD discipline. Purposive sampling was used to identify cases where there was substantial detail of Learning and Development interventions.

Trustworthiness

Guba and Lincoln propose five criteria of trustworthiness for qualitative research: credibility; dependability, confirmability, transferability, and authenticity (Guba and Lincoln, 1994).

Credibility refers to the confidence which can be placed in the findings of the study. A range of techniques for improving credibility are proposed in the literature, including triangulation, peer scrutiny and de-briefing, and sampling technique (Shenton, 2004; Nowell et al, 2017).

In this study informant triangulation was achieved through the use of a wide range of informants (Shenton, 2004), including cases from different units of assessment in both phases one and two. Additionally, researcher triangulation (Nowell et al, 2017) was employed. As described above, in phase one this involved two coders and processes to provide inter-rater reliability, such as the clear definition of the units of text to be analysed (the case study summaries); the adoption of a clear and simple coding scheme, and the measurement of inter-coder agreement (Campbell et al, 2013). The use of the CIPD's eight professional areas as a coding framework also ensured that the codes had explicit boundaries and were supported by detailed definitions, which again has been argued to improve credibility (Nowell et al, 2017). Scrutiny and de-briefing of phase one coding by the other three researchers further enhanced this criterion. Phase two cases meanwhile were each analysed initially by different researchers and then analysed and scrutinised by all other researchers, since 'credibility is enhanced if the data are analysed by more than one researcher' (Nowell et al, 2017, p. 7).

In relation to sampling technique, phase one utilised a population sample to avoid any possibility of researcher bias in sample selection. During phase 2 a purposive sampling technique was adopted to identify cases in which learning and development played a major

role since random sampling might have resulted in the selection of cases which provided little detail for analysis (Shenton, 2004). Details of the rationale for the selection were therefore given to increase dependability.

Dependability is addressed through a research process which is logical, traceable and well documented (Guba and Lincoln, 1994) with clearly articulated research design (Williams and Morrow 2009). Giving full details of the processes undertaken during both phases, and rationales for decisions made, such as the selection of cases in phase two, provides an audit trail (Nowell et al, 2017) which addresses this criterion. The use of a population sample in phase one also provides assurance that sufficient quantity of data has been gathered which again has been argued to increase dependability (Williams and Morrow, 2009).

Transferability relates to the external validity of the research (Shenton, 2004). In qualitative research this is assessed by the reader, and sufficient contextual information therefore needs to be provided for that judgement to be made (ibid.), in this paper through providing contextual information on the UK REF and the nature of HRD within the UK. Confirmability is said to be present when credibility, dependability and transferability are achieved (Nowell et al, 2017), with the previously-discussed triangulation noted as being particularly important (Shenton, 2004). Finally, authenticity relates to the realistic presentation of the range of different realities (Guba and Lincoln 1994), achieved in this project through the use of appropriate sampling techniques and the provision of rich description of the phase two cases.

Findings

Phase one

In 248 (3.74%) of the case summaries HR or HRD clearly constituted a subject of impact.

Analysis by CIPD professional area revealed more cases had Learning and Development as their subject than any other area of HR, the next most frequent subject being Resource and Talent planning (see table 1).

'Place table 1 here'

These cases represented 27 of the 36 REF2014 UOAs. Cases with Resource and Talent planning as a subject were drawn from the widest number of UOAs (16), followed by those with Learning and Development as a subject (14) and Organisation Design (11).

Focusing on Learning and Development, analysis indicated that the UOA with the highest proportion of cases with HRD as subject was Education, at 8.84%. The B&M UOA had the next highest proportion of cases, at 6.10%, followed by Sport and Exercise Science, Leisure and Tourism, at 3.28% (see table 2).

'Place table 2 here'

Turning to the use of HR and HRD to deliver impact, 1045 cases (15.75%) clearly used HR or HRD in this way. Analysis by CIPD professional area showed that the majority of these - 789 - used Learning and Development to deliver impact, representing 11.89% of all impact case studies. The professional area next most frequently used as a vehicle for impact was Resource and Talent planning, at 1.02%, with the other professional areas each used in less than 1% of the cases (table 3).

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The analysis revealed examples of HR or HRD being used as a vehicle in each of the 36 UOAs. Learning and Development was involved in delivering impact in all 36 UOAs compared to no more than 20 for any other HR or HRD area.

The UOA which made greatest use of Learning and Development to deliver impact was Education, where 36.28% of the cases used this CIPD professional area. This was perhaps unsurprising given the nature of the discipline. More surprising was the finding that only 16.34% of Business and Management cases used this professional area. In fact, the proportion of cases using Learning and Development was higher in 11 UOAs than it was in B&M (table 4).

'Place table 4 here'

Phase 2

Phase 2 examined the nature of Learning and Development involvement in impact outside the HRD function, through detailed analysis of one full case study from each of the top four UOAs (excluding Education) identified in Table 4.

The Psychology, Psychiatry and Neuroscience case focuses on developing a theory-based treatment of firesetting with Learning and Development impact concentrating on training in both mental health settings and HM prison service as well as on independent professionals adopting the research to develop their own development initiatives. The Social Work and Social Policy case aimed to improve engagement with involuntary service users in social work. It changed the practice of social workers and those responsible for their professional development in universities as well as influencing at a national level the learning culture within social work. By the development of the Prozone computerised system to monitor

player movements and subsequent coaching and mentoring materials, the Sport and Exercise, Sciences, Leisure and Tourism case influenced coaches and managers from professional and national clubs. The case in Theology and Religious Studies worked on peace building with national stakeholders, peace practitioners, religious and faith-based NGOs. It used the framework developed for analysing the potential of religion for peacebuilding in participative workshops and in the development of a collaborative religious peace building action plan between non-religious and religious organisations and actors in Nepal. While there was some impact on organizational performance, the cases therefore also revealed an important focus on impact on external stakeholders.

Analysis of the four case studies also revealed a range of Learning and Development interventions used as vehicles for delivering impact (table 5).

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Training was a key intervention for achieving impact. In the Sports and Exercise Sciences, Leisure and Tourism case, impact was achieved through disseminating the Prozone system via training courses for football industry staff. In the Psychology, Psychiatry and Neuroscience case, clinical professionals were trained in the use of a manual to improve the assessment and treatment of firesetters. The Social work and social policy case also involved researchers in delivering training on engaging with service users. However, this case also detailed further training developed and delivered by social work professionals as a result of the research, indicating involvement of other stakeholders in the delivery of the impact. While in the former two cases the development of training materials was by the researchers, in the latter it was more often by the professionals influenced by the research:

for example, it was claimed that the research had facilitated the design of a course by one practitioner-researcher.

Mentoring and the production of manuals/guides each featured as interventions in two of the cases. The manual developed by the researchers in the Psychology case aimed to have research-based assessment and treatment processes. The guides developed in the Social Work case also aimed to disseminate good practice to employees. By contrast, the mentoring implemented in this case did not seek to implement a particular practice but supported practitioner-researchers in undertaking their own research projects to achieve the impact they desired.

In line with this approach of empowering the employees to decide upon the ultimate impact on practice desired and how it could best be achieved, workshops/knowledge sharing events were also used in the Social Work case to develop ideas about good practice and shift practice- cultures. This was also a key intervention in the Theology case, in which the researchers facilitated 'problem-solving' workshops and consultations with a range of stakeholders, which led to the stakeholders developing an action plan for collaboration on peacebuilding. The other intervention in this case involved a presentation which, it is claimed, had increased civil servants' willingness to consider the need to engage with other groups.

These four cases highlight two approaches to using Learning and Development as a vehicle for delivering impact from research. In the first, for example in the case of the training in the Psychology, Psychiatry and Neuroscience case, the desired impact on practice is defined by the researcher. In the second, for example in the example of mentoring in the Social Work

case, and the facilitation of workshops in the Theology case, the ultimate desired impact on practice is defined by the developpees, who are empowered by the intervention.

These two approaches are reflected in the means used to *measure* impact. All cases drew to some extent upon qualitative testimonials. However, where the developpees were a vehicle for achieving outcomes pre-defined by the researcher, the measurement of impact also drew upon quantitative assessment of performance against those outcomes. Measurement of impact in the Psychiatry case, for example, was to include a 'controlled evaluation research comparing these patients [treated using the new procedures] to a treatment-as-usual group'. Evaluation of impact in the Sport case included statistics on player availability and injury.

By contrast, where the desired impact on practice was largely defined by the developers following the intervention, the impact claimed was on the developpees rather than the delivery of a particular practice. Quantitative measures of impact were therefore largely limited to the numbers of employees or organisations involved in the interventions, in ignorance of any change to practice that may have arisen. This reveals the limitations of quantitative measures of impact which do not involve wider stakeholders, and highlights an additional contribution HRD could make to overcoming the research-practice gap through its expertise in the evaluation of interventions.

Discussion and Conclusions

This paper sought to answer the question: 'what is the role of Learning and Development in bridging the research practice gap?' The so-called research-practice divide is discussed extensively in the management and HRD literature, and the importance of evidence-based management for effective management of human resources in organisations (Tenhiala *et al*,

2016) poses questions regarding the capacity of HR and HRD scholars to impact upon practice. Simultaneously, HR and HRD practitioners are advised to use scholarly research to demonstrate the contribution of HR and HRD practice to organisational performance (Guest and King, 2004). Our analysis of impact case studies from all REF2014 UOAs was undertaken to consider the role HRD, and specifically Learning and Development, may play in bridging this research-practice gap both within HRD and more broadly.

In relation to our first aim, to analyse the role of Learning and Development in overcoming the research-practice gap across all academic disciplines, we found that Learning and Development was the subject of the impact of research from a wide range of disciplines outside its traditional homes of Education and Business Management. Of greater significance, however, was its role as a vehicle for impact. Importantly the number of cases using Learning and Development as a vehicle to deliver impact was higher in eleven disciplines than in Business and Management, indicating a broker role (Ferlie et al, 2016) in bridging the research-practice gap across academia. This paper's findings, therefore illustrate how, as a vehicle for impact beyond its traditional disciplinary and functional homes, Learning and Development is already addressing criticisms of its organizational focus (Elliott, 2016).

In relation to our second aim, to compare the role of Learning and Development with that of other areas of HR and HRD, we find Learning and Development more frequently represented as both the subject of the impact and the vehicle for delivery of impact, highlighting the significant role of this activity of HRD in overcoming the research-practice gap. Our analysis reveals that in many cases stakeholders other than the researchers are involved in defining the desired impact of the Learning and Development intervention. This

supports claims that evaluation of the impact of research on practice is more likely to be effective when stakeholders are involved (Currie *et al*, 2016), and suggests an additional role for HRD using its knowledge about networking, stakeholder engagement and evaluation in facilitating that.

Evidence presented for HRD's broader reach through Learning and Development interventions widens a debate traditionally focussed on the relationship between HRD researchers and HRD practitioners. HRD researchers and practitioners have the opportunity to develop their broker role by building on connections with scholars and practitioners in other disciplines and functions using, or seeking to use, HRD as a vehicle for impact on practice. In sharing their expertise, HRD scholars can forge meaningful cross-disciplinary collaboration. This would serve to bring broader awareness of HRD research including how HRD expertise can facilitate impact across disciplinary boundaries.

Limitations and Directions for Future Research

We note some limitations to our research. Our analysis of the impact case studies mirrors the limitations of the methods used to evaluate them in the REF. That is, it is based upon self-reporting by the submitting institutions of a self-selected sample of cases. It may therefore not be representative of all impact from academic research on practice. We could only present in-depth analyses of four cases involving Learning and Development. Further research would be helpful to enable a more detailed analysis of a greater sample of cases. We were also unable to identify the extent to which HRD scholars, and/or practitioners, were involved in the design and delivery of the Learning and Development interventions described. Interviews with academics involved in a sample of the cases would be helpful to clarify the role of HRD scholars and practitioners in the delivery of their impact, providing

more evidence to assess the feasibility of building and developing collaborations between HRD and other disciplines and functions.

To conclude, our paper makes three contributions to the enduring challenge of ensuring academic research achieves impact on professional practice. First, we discover HRD's important role in bridging the gap between research and practice in different sectors and organisational contexts, most notably through using Learning and Development as a vehicle for the delivery of impact. Our second contribution is the recognition of the role Learning and Development already plays in achieving impact outside organisational boundaries when research from outside the Business and Management discipline is taken into consideration. Finally, we continue the debate on measuring impact and identify a key need for HRD expertise in facilitating this. Irrespective of research assessment activities, HRD clearly maintains an important bridging role to play in connecting different disciplinary areas to achieve practical impact beneficial to organisations and society as a whole.

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Table 1: Cases coded as having HR and / or HRD as subject, by CIPD professional area.

CIPD area	Number of cases	% of all impact cases
Learning and development	77	1.16
Resource and talent planning	57	0.86
Performance and reward	33	0.50
Employee relations	32	0.48
Organisation Design	30	0.45
Employee engagement	22	0.33
Organisation Development	21	0.32
Service delivery and information	0	0.00

(Note: cases add to more than 248 as some had more than one HR area as their subject; percentages are given to two decimal places to highlight small but potentially interesting differences).

Table 2: % of cases from each UOA coded as having Learning and Development as subject

UOA (number of cases in unit)	% (number) of all cases from the UOA
Education (215)	8.84 (19)
Business and Management Studies (410)	6.10 (25)
Sport and Exercise Sciences, Leisure and Tourism (122)	3.28 (4)
Social Work and Social Policy (186)	2.15 (4)
Psychology, Psychiatry and Neuroscience (316)	1.90 (6)
Allied Health Professions, Dentistry, Nursing and Pharmacy (342)	1.75 (6)
Computer Science and Informatics (248)	1.61 (4)
Law (216)	1.39 (3)
Philosophy (98)	1.02 (1)
Communication, cultural and media studies, library and information management (159)	0.63 (1)
Public Health, Health Services and Primary Care (163)	0.61 (1)
Politics and International Studies (166)	0.60 (1)
Art and Design: History, Practice and Theory (231)	0.43 (1)
Clinical medicine (383)	0.26 (1)

Table 3: Number of cases coded as using HR and / or HRD as a vehicle for delivering impact, by CIPD area.

CIPD area	Number of cases	% of sample of all impact cases
Learning and development	789	11.89
Resource and talent planning	68	1.02
Organisation Development	44	0.66
Employee relations	41	0.62
Performance and reward	34	0.51
Employee engagement	32	0.48
Organisation Design	30	0.45
Service delivery and information	0	0.00

(Note: cases add to more than 1045 as some used more than one area of HR to deliver impact).

Table 4 – % of cases from each UOA coded as using Learning and Development as a vehicle for delivery of impact

UOA (number of cases in unit)	% (number) of cases within each UOA using HRD as vehicle for delivery of impact
Education (215)	36.28 (78)
Sport and Exercise Sciences, Leisure and Tourism (122)	27.87 (34)
Social Work and Social Policy (186)	22.58 (42)
Psychology, Psychiatry and Neuroscience (316)	21.84 (69)
Theology and Religious Studies (75)	20.00 (15)
Allied Health Professions, Dentistry, Nursing and Pharmacy (342)	18.71 (64)
Politics and International Studies (166)	18.07 (30)
Area studies (68)	17.65 (12)
Anthropology and Development Studies (80)	17.50 (14)
Business and Management Studies (410)	16.34 (67)
Philosophy (98)	16.33 (16)
Modern Languages and Linguistics (190)	14.74 (28)
Sociology (97)	14.43 (14)
Communication, Cultural and Media Studies, Library and Information Management (159)	13.84 (22)
Architecture, Built Environment and Planning (140)	12.14 (17)
Classics (59)	11.86 (7)
English Language and Literature (280)	11.43 (32)
Law (216)	11.11 (24)
History (263)	11.03 (29)
Music, Drama, Dance and Performing Arts (194)	9.80 (19)
Civil and Construction Engineering (51)	7.84 (4)
Geography, Environmental Studies and Archaeology (235)	7.23 (17)
Agriculture, Veterinary and Food Science (125)	7.20 (9)
Earth Systems and Environmental Sciences (171)	7.02 (12)
Computer Science and Informatics (248)	6.85 (17)
Public Health, Health Services and Primary Care (163)	6.75 (11)
Aeronautical, Mechanical, Chemical and Manufacturing Engineering (119)	6.72 (8)
General Engineering (239)	6.69 (16)
Art and Design: History Practice and Theory (231)	4.33 (10)
Clinical Medicine (383)	4.12 (16)
Economics and Econometrics (98)	4.08 (4)
Chemistry (125)	4.00 (5)
Biological Science (257)	3.98 (10)
Mathematical Sciences (209)	3.83 (8)
Physics (181)	3.31 (6)
Electrical and Electronic Engineering, Metallurgy and Materials (125)	3.17 (4)

Table 5: Learning and Development interventions used in the four case studies.

	Unit 26: Sports and Exercise Sciences, Leisure and Tourism. Case title: 'A tactical change': Influencing professional development and supporting evidence-based practice within the football industry	Unit 4: Psychology, Psychiatry and Neuroscience Case Title - The first comprehensive theory-based treatment of firesetting.	Unit 22: Social Work and Social Policy Case Title: Improving engagement with involuntary service users in social work	Unit 33: Theology and Religious Studies Case Title – Religion and Peacebuilding in Nepal
Training delivery	X	x	X	
Development of training materials	X	x	X	
Development of educational curricula	X			
Mentoring	x		X	
Manuals / guides		x	X	
Presentations				X
Facilitation of workshops / knowledge sharing events			X	X
Facilitation of practitioner research			X	