A Digital Pedagogy Pivot: Re-thinking Higher Education Practice from an HRD perspective

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Abstract

This paper has a provocative purpose. From both HRD and academic practice perspectives, it considers the digital pedagogy pivot made necessary by the Covid-19 pandemic. Universities have traditionally resisted substantial change in learning and teaching processes. This paper addresses the challenge they face of achieving the equivalent of a ten-year digital learning strategy in mere months. From a position that HE pedagogy constitutes a site of HRD practice, the paper considers the characteristics of a meaningful, digitally enabled pedagogy in Higher Education (HE) and their alignment with established HRD theories and concepts. It considers the pedagogic opportunities arising from the 'digital pivot' and the HRD processes appropriate to facilitate game changing approaches to academic practice in Higher Education. The paper advances debate about the relationship between HRD and HE academic practice and contributes proposals for HRD processes to support rapid pedagogic change. It further contributes an original categorization of the way in which HRD concepts and theories are aligned with principles of HE pedagogy and a digital pedagogy pivot model.

Keywords: Higher Education; digital pedagogy; academic practice

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This paper considers the HRD implications of the Covid-19 pandemic for academic practice in Higher Education (HE). Throughout the world, and especially where a campus-based HE system is the norm, the Covid-19 pandemic has triggered a seismic change by accelerating universities' timelines towards digital learning (Houlden and Veletsianos 2020).

Requirements for social distancing mean that universities and colleges have been forced to suspend face-to-face teaching with almost no advance warning. Where lockdown arrangements have been put in place academic staff have been required to deliver a rapid pedagogic response with precious few resources to deliver courses online; provide remote support for students, and put in place digitally facilitated end-of-year and end-of-programme assessments. Academic staff across the world have taken to their computers and relied on home-based internet connectivity whilst attempting to emulate and apply campus-based learning norms to the digital world. Following an initial rapid response period, medium-term 'social distancing' measures and predictions of subsequent periods of lockdown and travel disruption threaten to disrupt campus-based education for the foreseeable future. Universities around the world have been forced to prepare to teach online for the medium term. Lecture halls remain empty, laboratories and other university facilities sit idle or operate with minimal staff, and HE managers and administrators contend with whether, and how, to safely resume campus-based classes (Houlden and Veletsianos 2020; Nature 2020).

From my perspective as both an HRD scholar and an academic practitioner operating primarily in the UK HE system, this article has a provocative purpose. It addresses the specific challenge of a digital pedagogy 'pivot' from both an HRD and an HE practitioner's perspective. Whilst the immediate rapid response to the Covid-19 situation involved 'making-do' with 'what's possible', this paper addresses the problem that 'emergency provision' is not acceptable as a basis for learning and teaching in HE in the medium term. I contend that Universities face a challenge of achieving the equivalent of a ten-year digital learning strategy in mere months in institutional contexts that traditionally have resisted meaningful change in learning and teaching processes (Flavin 2012; Jensen, Price and Roxa 2019). As the HRD field embraces issues of adult learning, development and education at the levels of the individual, group, organisation and society (Baek and Kim 2014), I contend that

pedagogy in universities is a form of HRD practice. I make this provocative contention from the position that HE involves sustained processes of learning, development and education. Such learning is increasingly integrated with work-based learning and experience. Therefore, just as HRD is not confined to class-room experiences and instructor-led programmes, so also HE processes increasingly engage learners of all ages and in a range of work-related as well as campus-related contexts. Thus, HE pedagogy can and should be considered as a site of Human Resource Development practice.

From the perspectives of both the HRD and the HE field, therefore, I address three questions:

1. What is a meaningful, digitally enabled pedagogy in HE and how is this aligned with the HRD knowledge base?
2. What pedagogic opportunities arise from the digital pivot?
3. What HRD processes are required to encourage and facilitate game changing approaches to academic practice in HE?

I first expand on my argument that HE pedagogy may be considered as a form of HRD and set out the definition of the term 'pedagogy' that is used in this article. I then describe principles of effective pedagogy in educational contexts and their alignment with well-established concepts, theories and practices from the HRD literature base. The argument I promote is that the digital pedagogy pivot prompted by the Covid-19 pandemic provides an opportunity to reassess pedagogic values and methods. A digital pedagogy is not 'better' or 'worse' than a campus-based pedagogy but it requires additional skills. Most academic professionals, like many in HRD practice, are uniquely unprepared for a rapid pedagogy pivot. In the final section of the paper I consider three HRD processes that can encourage game changing approaches to academic practice and deliver a step change in the knowledge

and understanding of online education across different University subject disciplines and specialisms. The provocations I raise in this paper make three important contributions. First, they advance debates about the symbiotic relationship between HRD and HE practice. Second it contributes a model of the digital pedagogy pivot informed by a synthesis of concepts and theories drawn from the HRD and HE pedagogy literatures. Finally, it contributes new proposals for HRD processes to support the development of game-changing pedagogic practices and adds a much needed HRD 'voice' to issues of academic and professional development in HE.

Principles of pedagogy and the HRD literature base.

In this section I first make the case that HE pedagogy may be considered as a form of HRD. The term 'pedagogy' refers to more than the mere deployment of learning techniques and methods. Rather, it concerns the interaction between learning and teaching practices and underlying beliefs and values about how learning can, should, and does, occur (Kreber 2010). Using the term in this way directs attention to the relationship between values and assumptions about the connection between learning, teaching, and development as well as the learning-focused practices that both learners and learning facilitators enact. In order to illustrate the relationship between HRD and HE pedagogy I draw on the work James and Pollard (2011) who, from educators' perspectives describe commonly accepted principles of effective pedagogy in educational contexts.

One hall-mark of effective pedagogy is that it equips learners for life through the development of their intellectual, personal and social resources. Second, good pedagogic practice encourages learner engagement with valued forms of knowledge, ideas, and forms of discourse, ways of thinking and practising that are appropriate to each individual's context. Third, effective pedagogy builds on learners' prior experience and learning and takes account

of the personal and cultural experiences of different groups of learners. A fourth feature of effective pedagogy is the provision of structures and processes of intellectual, social and emotional support to enable learners to move forward in their learning. A further pedagogic principle is the effective use of formative and summative assessment, aligned with anticipated learning outcomes to advance learning and determine the extent to which learning has occurred. Another key feature of effective pedagogy is the encouragement of a range of learning strategies and practices that promote learners' independence and autonomy. In addition, the promotion of social processes of relationship-building, communication and 'giving voice' for learning purposes is built into the principles of effective pedagogy. Recognition of the importance of informal learning is a further point of alignment between principles of effective pedagogy and HRD norms and values leading to a requirement to value learning arising away from the workplace or 'out of class'. The enactment of effective pedagogy also requires consistent policy focus on support for learning and sustaining effective learning environments for all learners. Finally, principles of effective pedagogy acknowledge the importance of continuous learning and development trajectories of those who support and facilitate the learning of others.

I summarize these principles of effective pedagogy in in Table 1 which further illustrates the alignment of these pedagogic principles with well-established concepts, theories and practices from the HRD literature base and identifies areas of potential application for a digital pedagogy.

[Table 1 around here]

Table 1 highlights the importance of active learning approaches that foster learner engagement through experiences that are located as part of a learning community and which motivate participation and learners' sense of belonging. These values are fundamental to both

HRD and HE pedagogy. However, in a context of globalization and marketization with substantial shifts over time in student demographics, enacting these pedagogic principles has proved challenging in HE. Universities face unique challenges resulting from the complexity of their institutional structures, their multiple goals, and a juxtaposition of traditional scholarly values with concerns about their societal relevance and utility (Jones 2013). Therefore, it is important to consider the extent to which traditional campus-based HE pedagogic practices have eroded the pedagogic values espoused as a feature of academic practice.

First, critics of contemporary academic practice suggest that a one-way facing, teacher-at-the-front pedagogy increasingly dominates teaching processes and the use of space on University campuses (Jessop, Gubbins and Smith 2012). Alongside narratives of 'student partnership' and 'student voice', critics have identified how learners are increasingly cast as the 'audience' of a lecturing performance. This is reinforced by timetabling and scheduling mechanisms that privilege the priorities of space management and logistics over the facilitation of developmental learning 'pathways'. Second, discourses of 'value for money' and 'student choice' (Anthony and Antony 2017), as well as employers' demands for vocational 'employability skills' and work-ready students may also have led to the relegation of developmental and constructivist pedagogic values (Tomlinson 2017).

Although there is evidence that 'self-regulated' and experiential learning does feature in campus-based curricula, such learning arises more from extra-curricular opportunities associated with leaving the parental home, making new friends and acquiring habits of independence rather than as a feature of pedagogic intent (Vermunt, Ilie, and Vignoles 2018). In addition, the post-Covid-19 pandemic curriculum is not able to deliver these opportunities from campus based environments often characterized by newly erected campus buildings containing impressive 'atriums' and other extended, but crowded, spaces that only 'work'

when people are allowed to mix and gather together. In a socially distanced context, the opportunities for movement, exchange and face-to-face interaction that feature in many University prospectuses and marketing websites are redundant.

At the same time, senior managers in campus-based Universities have been enthusiastic about the potential of blended learning or other online forms of learning and teaching delivery methods as a cost-effective means to enable scalability of courses and increased student numbers. In addition, the HE literature base is also replete with empirical research concerning the use of digital tools in the HE sector: (c.f. Hwang 2018; Lin and Hwang 2018; Walker, Voce, and Jenkins 2016; Mooji, Steffens, and Andrade 2014). However, the adoption of technology in different HE contexts has, with some exceptions, been more of an individual 'lone-ranger' process (Jenson et al. 2019; Smith and Hill 2019) rather than an institutional endeavour. In much academic practice, technology has been used for little more than information transfer and administrative matters (Laurillard 2013; Rosenbusch 2020).

Therefore, it is timely to consider how a digital pedagogic pivot might shift the focus of HE pedagogic processes dominated by lecturers and instructional assumptions to re-focus on learner engagement and increased pedagogic opportunities for shared responsibility for learning enacted through active processes focused on the achievement of anticipated learning outcomes.

Digital pedagogy pivot opportunities

The argument I am advancing in this paper is that pedagogic principles have been challenged in Campus-based HE settings. Social distancing further negates many constructive pedagogic practices that relied on face-to-face campus-based interactivity. However, the digital pedagogy pivot prompted by the Covid-19 pandemic provides an opportunity to

reassess pedagogic values and methods. Here again, the term 'digital pedagogy' should not be conflated with the deployment of 'digital tools'. Rather, the term refers to learning-focused values that have relevance not just for subject specific education, but to personal and social processes and relationships and systems intrinsic to the learning process (James and Pollard 2011). In this section, grounded in the principles of pedagogy that are shared across the HE and HRD fields, I consider the academic practice requirements of a digital pedagogy pivot.

Numerous frameworks and models of learning or instructional design underpin the practice of both educators and HRD professionals. For example, Bloom's (1956) classification of six different levels of learning ranging from knowledge (remembering), comprehension/understanding, application, analysis, synthesis/creating, and evaluation is a common feature for pedagogic planning processes in both fields. The recognition of individual-level generative learning processes involving learners in actively and selectively constructing meaningful understanding from the interaction of learning and existing knowledge is also common to both fields. The educational and HRD literatures both value constructive alignment between learning design, delivery, assessment and evaluation with the achievement of anticipated learning outcomes (Biggs 1996; Trigwell and Prosser 2014).

A digital pedagogy pivot does not negate any of these principles but there are additional challenges to be faced by learners, facilitators, and educators. First, both Universities and individual learners may have different levels of access to appropriate technology platforms and infrastructure. Digital pedagogy cannot be effective if people (academics and students) do not use the technologies. Both learners and educators have different levels of IT skills and confidence. Specifically, research indicates that learner's perceptions of the usefulness and ease-of-use of technologies are important influences on their online learning attitudes and behaviours (Šumak, Heričko and Pušnik 2011).

Second, research suggests that learning motivation occurs in different ways and over shorter time-frames with online learning. For campus based delivery, students may acknowledge a minimum requirement for their physical presence on campus and in class-rooms. In an online environment learners are more easily distracted from engaging with digitally delivered learning activities. Third, research indicates that students tend to access digital learning resources from a variety of personal computing devices (e.g. their tablet, smart phone or laptop) and this can make learning materials difficult to navigate. Linked with this, the drop-out rates from e-learning and distance learning courses have been shown to be higher than for face-to-face delivery (Castro 2019). This is often triggered by encountering technical difficulties or with difficulties in understanding learning content. In addition, when progressing through an online curriculum, students have limited access to nonverbal communication and social cues (for example, gestures and facial expressions) that are readily available in campus-based pedagogic settings. This means that a learner's attention is rarely maintained over time periods of more than 10-15 minutes, particularly in a Covid-19 context where students' working hours may be variable and hard to predict, and learners will be required to juggle family or care commitments alongside their studies. Finally, HRD studies suggest that many online participants prioritize content over social learning opportunities but also indicate that social or group learning activities can productively encourage information assimilation, dialogue, and reflective learning. However, there may be a small number of contributors who conduct most of the activity, with the majority of other students being tempted to ad hoc and passive participation (Anderson et al. 2020).

Therefore, a digital pedagogy pivot requires a clearly communicated pedagogic framework which recognizes the following six issues. First, expectations, guidance and 'signposting' must be designed into course provision. This must identify core and 'additional' topics and learning activities in a clear way and be more frequently articulated than is usual in

a campus-based pedagogy. Second, more regular, frequent, and appropriate support for learners is required. Third, effective digital pedagogy recognises and meets the needs of students with a diversity of contextually situated learning needs. Fourth, attention is needed to the synchronicity of learning experiences. In campus based forms of pedagogy, synchronous (at the same time) learning opportunities through lectures or seminars are the norm. The generation of pace, motivation and completion of activities through online delivery, however, requires consideration of asynchronous learning activity such as discussion forums as well as the curation and production of relevant learning resources that provide flexibility for students who are unable to commit to attendance at a pre-determined moments in time. Fifth, long lectures and presentations should be avoided (Morton et al. 2016) and synchronous (live) webinars, where they remain a feature of learning design, should be complemented by asynchronous learning activities. Sixth, assessment and evaluation activities (formative or summative) can, and should, can be built into every stage of the online learning pathway. The implications of the digital pedagogy pivot for learning design, delivery, assessment and evaluation are summarized in Figure 1.

[figure 1 around here]

Successful learning also requires that students recognise their ownership and responsibility for their learning. Implicit in Figure 1 is recognition that learners are equal partners in the learning process. Although this is an established feature of both HRD and HE literatures, many learners affected by the rapid deployment of online forms of pedagogy are likely to have applied for or enrolled on a Campus based, rather than a digitally enabled, programme of study. In the Covid-19 context many students are inexperienced with digital education processes and unprepared to know how to optimize their learning in this unanticipated context. This requires their attention to four issues.

First, it is important that students recognize the importance of finding a place to study where distractions are minimised for defined and pre-determined periods of time. Linked with this, students' may be unprepared for the importance of detailed familiarity with the online virtual learning environment or learning system on which their course of study will be hosted. However such familiarity is crucial as it is the means by which they will access course content, connect with other students and their tutors, submit work for feedback and so on. Third, with the added flexibility provided by a digital pedagogy, goal-setting behaviours are an important feature of an effective learning experience. For almost all programmes of study where digital delivery has replaced a campus based timetable, there will be a specific schedule with set due dates for assessments and feedback. There may also be group projects, requiring collaboration to meet deadlines. Therefore, setting and monitoring achievements against learning and activity goals is an important feature of pedagogic effectiveness from the student perspective. Successful learning also requires student interactivity with other learners and so a recognition of the challenges of 'psychological distance' between themselves and other learners or tutors, and taking steps to overcome interactive hesitancy is important. Linked with this, students may be unaware of the importance of their proactive and regular connection with sources of support for learning throughout their course provided, for example, by personal tutors/advisors; tutors; peers, and other University support services.

To summarize, whilst there are differences between a digital pedagogy and a campus pedagogy, both approaches are underpinned by established principles with relevance to tutors / facilitators and students / learners. Design of, and participation in, learning pathways that are clearly structured, designed and delivered as well as constructive alignment of anticipated learning outcomes; learning experiences and the assessment of learning is common to both digital and campus-based pedagogy. In both pedagogic 'modes', learner engagement; encouragement of learner participation; and continuous and regular processes of learner

feedback as well as attention by both learners and tutors to the application of learning, are recognized to be important. Although there are differences, therefore, digital pedagogy is not 'better' or 'worse' than campus-based pedagogy but learning design and online teaching requires additional skills, for both students and tutors.

HRD processes to support the pivot

The point of departure for the final part of this article is that most academic professionals, like many in HRD practice, are uniquely unprepared for a rapid transition to digital technology as the basis for learning, teaching and facilitation practice. Uncertainty about the skills required to develop online learning programmes, deliver effective teaching and facilitation on line; maintain relational learning processes with students, design appropriate assessment processes and cope with the complexities of the different available digital software platforms are important barriers to the acceptance and usage of technology as the basis for academic practice (Petreski et al. 2011, p.267). However, an urgent priority for Universities is to encourage and support academic professionals, as well as their students, to decouple HE pedagogy from physical co-location so that effective learning and teaching can occur regardless of the availability of physical space. The implications for student preparedness through induction, transition and support processes are outside the scope of this article. However, in this section, through addressing my third guiding question, I consider how HRD can encourage game changing approaches to academic practice. The focus is on delivering a step change in academics' knowledge and understanding of online education across different University subject disciplines and specialisms.

Although research indicates that HRD has a significant role to play in any change management process, HRD practitioners rarely occupy strategic or visible roles in University settings where institutional cultures of defensive routines (Brown 2012; Meister-Scheytt and

Scheytt 2005) are widespread. However, HRD practices are fundamental to enabling academics to practice in the short-term, and also to enact a digital shift in learning delivery. Drawing on (Holt et al. 2011) and Dysart and Weckerle (2015) as well as on the HRD literature, I identify the main components of what I refer to here as just-in-time professional development that can enable academics to make a rapid pedagogic pivot.

Just-in-time professional development

A successful digital pedagogy pivot relies on academics who are able to integrate technological knowledge, pedagogical knowledge, and content knowledge. Just-in-time professional development recognizes the importance of understanding how each of these areas "interact, constrain, and afford each other" (Koehler, Mishra, Kereluik, Shin and Graham 2014, p. 102). Integrating technology into the curriculum is complex and will differ based an individual academic's personal teaching preferences. The challenge is to find ways of providing academics with pedagogical and technological professional development opportunities that are directly applicable, meaningful, and relevant to each individual discipline and which each academic can make their own.

However, most HE based professional development opportunities isolate technological, pedagogic and subject-specific knowledge by providing workshops about specific technologies or pedagogic tools. These workshops or courses are often led by technologists with limited understanding of the subject matter that participants are teaching. The focus is usually on how technology can facilitate general pedagogical strategies, rather than applying technology to teach specific content (Koehler et al. 2014). Such an approach is limited in the extent that it can support the academics who will ultimately deliver pedagogic processes (Dysart and Weckerle 2015).

Therefore, I contend that the first step in support for academic practice development is provision of a just-in-time professional development process that is directly relevant to the learning design, delivery and assessment problems created by the digital pedagogy pivot. Drawing on the HRD concepts of action learning and experiential learning, (Yeo and Marquardt 2015; Yeo and Gold 2011), I contend that just-in-time professional development requires the creation of an environment where academics can make learning design decisions that can be directly applied to what they are teaching; offering them ongoing support as they teach; and evaluating the effectiveness of the digital pedagogy that they are enacting. Just-in-time professional development would integrate academics' understandings of how technology and pedagogy interact with each other and within specific content areas. It would encourage them to reflect on the problems they are encountering with the pivot process and attempt to find solutions to these problems. Therefore, just-in time professional development for a pedagogy pivot goes beyond individual workshops where one or more new tools are introduced. Instead it would include a variety of opportunities through which academics can experience how it feels to learn from different tools and strategies and to reflect on the constraints and opportunities they offer. This process would support them in their efforts to design modules and courses that integrate these tools and strategies into their specific content. Although I refer to this as just-in-time professional development, these professional development opportunities should continue into the academic year as the tools and strategies are implemented in practice.

Communities of Practice

The HE sector is populated with academics who have varying levels of willingness and availability to participate in extended professional development processes. Therefore, in addition to the provision of opportunities for just-in-time professional development programmes, I draw on the work of Wenger (1999) to propose a complementary forms of

development through which academics can engage in informal and situated learning to share their experiences, not only of what has worked but also what has not worked, in order to foster and sustain digital pedagogy through and with others.

Communities of practice, based around the fundamental concept that learning occurs through a process of social participation in a community where others are also engaged and share a sense of joint enterprise and identity, are well established in the HRD literature. Communities go beyond individuals simply having a shared technical knowledge or skill; members create relationships with others based around the creation of shared understanding and a repertoire of ideas that have significant meaning to these individuals (Wenger 1999). As the demands of a digital pedagogy pivot require close collaboration between academics and technology support units, I contend that professional development through communities of practice involving academics and others provides opportunities for collaboration and knowledge sharing are important to support and sustain pedagogic change processes.

As content experts, members of subject specialisms understand the relationships that are important within their discipline and the potential amplifying effects of technology. Communities of practice within subject specialisms are the most appropriate locations for supporting successful and sustainable implementation (Corley and Eades 2004). Communities of practice constitute the most productive location for continuing practice-based development and reflection as a base for support throughout the academic year as problems are encountered and solutions can be identified that are appropriate to the local context (Gast, Schildkamp and van der Veen 2017). They open up opportunities to discuss problems, skills, and concepts and also provide a basis for sharing of common materials through the opportunity to regularly evaluate, reflect on, and update technological tools and

pedagogical strategies. They provide a basis from which academics can continue making iterative changes to modules and courses where they have integrated technology.

Whilst it might be beneficial to have academics first participate in some form of experiential professional development processes as outlined earlier in this section, Communities of Practice provide academics with an additional, and – if necessary – alternative opportunity to develop their expertise by talking about, engaging in, and observing others' practices of teaching with technology. This encouragement of subject-located Communities of Practice does not negate the role of centralized support units nor does it negate other forms of just-in-time professional development. However, as a sequential or parallel form of HRD opportunity, Communities of Practice can support academics to gain expertise in integrating technology into their teaching. In this sense, in-depth support from centralized professional development should become less necessary and more specialized, and can be conceptualized as the removal of scaffolding from peers as learners move from digital pedagogy novices to experienced practitioners (Vygostsky 1978).

Peer Mentoring

Mentoring is a further concept and practice that is well established in the HRD field (Ghosh 2018). In the UK HE sector at least, most attention in HE towards mentoring as a means of academic development has been focused on the needs of new career academics. Mentoring is traditionally expected to provide role-modelling, advocacy, sponsorship, and guidance on either or both teaching and research; information about promotion processes, assistance with work-life balance and wider opportunities for networking. Traditional descriptions of mentoring in HE indicate a dyadic relationship between a more seasoned expert and a less experienced protégé (Sherman and Burns 2015). However, I contend that the context of a pedagogy pivot provides an opportunity for newer and less hierarchical

mentoring models including the utilization of a peer-group mentoring process. New models of peer mentoring might include alternative forms of mentoring based on the recognition that that academics at all stages in their career can benefit from multiple developmental relationships (Allen et al. 2017).

Although creative approaches to peer mentoring, stimulated by the exigencies of a rapid digital pedagogy pivot, could be established as a feature of other just-in-time professional development processes, it is feasible to consider mentoring as a stand-along or complementary process in a context where development processes that are scalable across different subject specialisms within universities are a priority. Peer mentoring would provide an opportunity for academics to work with peers in their area of subject matter expertise who, whilst less advanced in their academic career, have more experience with integrating technology into their teaching. Peer mentoring provides four potential benefits. First, it can be locally based, enabling academics to gain understanding of pedagogies effective for their specific discipline. Second, it provides a mechanism for observation of learning design or delivery to promote reflection on how the success of integrating digital opportunities into learning programmes. Third, it can provide academics with a more confident basis from which they can put their learning design into practice and implement an effective integration of technology and pedagogy. Finally, it enables peer mentors themselves to gain feedback and reflect on how areas of success and improvement could be applied in their own practice (Schmidt and Faber 2016).

Conclusion

This article addresses three important questions from both an HRD and an educator's perspective. Universities must achieve the equivalent of a ten-year digital learning strategy in mere months. Drawing on, and synthesising both HRD and HE literatures, its principal

provocative purpose is to identify the pedagogic and HRD implications of the digital pedagogy pivot that is occurring across the HE sector.

The approach I take in this article is that digital pedagogy is less about tools and is more about learning processes and relationships, and that HRD has much to contribute. I acknowledge uncertainties, limitations and priorities for further research arising from the provocations I raise. First, whilst I argue for HRD processes to enable pedagogic change in the medium term, little is known about the extent to which academics and students are ready to accept such changes as a basis for learning and teaching beyond the medium term (Crawford et al. 2020). Second, academic's motivational triggers are linked with the opportunity to learn new skills, show helpfulness, feel a sense of being appreciated, and exercise professional autonomy. Such recognition prompts further attention to academic leadership as an important influence on academic practice and the enactment of a pedagogy pivot. Institution-wide decisions about whether just-in-time Professional Development should be incorporated into institutional professional development processes over the longer term are a feature of wider HE management decisions. This merits further attention but is outside the scope of this article.

The future for HE is uncertain and good-quality digital learning experiences are a necessity rather than a luxury in the context in which Universities find themselves. There are many implications for stakeholders involved in learning and teaching in HE. First, without the affordances of the physical campus, academics and course designers must find ways to signal the university's 'spirit' and academics' and students' 'presence' as a clear feature of learning and teaching experiences. Second, HE institutions must urgently address issues of the academic's 'home office' infrastructure to enable their effective academic and pedagogic development and practice. Third, HE institutions must address issues of student infrastructure recognising that students may be operating in locations and contexts that present many

challenges to sustained and meaningful learning processes. Fourth, the shifts in pedagogic practice I have discussed in this article are not for the faint-hearted. In a digital pedagogy pivot context Professional Development and HRD practitioners must respond with the same urgency and with the same flexibility as Universities have expected of their academics.

Meeting the pedagogy pivot triggered by the Covid-19 pandemic has the potential to build resilience against future challenges to student recruitment and models of HE provision but requires a shift in pedagogy and practice. The provocations I raise in this paper make three important contributions. First, in response to my first question, I add a new perspective to understanding the relationship between HRD and HE practice through contributing a novel categorization of the way in which HRD concepts and theories are aligned with principles of HE digital pedagogy. Second, in relation to the second question, I contribute a new model of the digital pedagogy pivot informed by a synthesis of concepts drawn from HRD and HE literatures to facilitate planning, delivery and evaluation of a digital pedagogy in HE. Finally, in relation to my third question, I contribute new proposals for HRD processes to support the development of game-changing pedagogic practices. This new HRD 'voice' in the narrative of academic and professional development in HE is important as it contributes a much needed perspective that pedagogic professional development focused on how and why people learn, is as valuable as other forms of academic development.

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HE Pedagogic Principles	Indicative HRD theories and models - illustrative example	Implications for HE and for HRD	Digital pedagogy opportunities
Equip learners for life through the development of their intellectual, personal and social resources	Lifelong learning Billett (2010)	Focus on broad and worthwhile learning outcomes	Focus on personal goal-setting as an important feature of the learning experience.
Develop learners through engagement with valued forms of knowledge.	Learning and development Garavan, McGuire & Lee (2015)	Emphasise expertise, excellence and evaluative criteria	Production and curation of relevant learning resources to promote learner engagement and take into account spatial and temporal contexts.
Build on learners' prior experience and learning	Experiential learning Yeo & Marquardt (2015)	Take account of what the learner knows already	Recognition of learners' contextually situated learning needs
Structure processes of intellectual, social and emotional support for continuous learning	Emotion and learning Vince (2014)	Construct appropriate scaffolding of learning processes	Expectations, guidance and 'signposting' as an integral feature of course provision
Design appropriate assessment of learning	Assessment and evaluation Russ-Eft (2014)	Design and implement valid assessment to advance learning and to determine the extent to which learning has occurred	Formative and summative assessment and evaluation activities designed into every stage of the online learning pathway.
Promote the active engagement of the learner	Action learning Yeo & Gold (2011)	Design learning strategies and practices to promote learners' independence and autonomy.	Inclusion of more regular, frequent, and appropriate interaction and support processes

Promote communication and relationship-building for learning purposes	Social learning Storberg-Walker & Gubbins (2007)	Encourage the learner 'voice' at all stages of the learning process	Encourage learning activities that promote on-line and off-line discussion processes
Recognise informal learning as a worthwhile feature of learning processes	Informal and incidental learning Watkins, Marsick, Wofford, & Ellinger (2018)	Value informal learning and deploy it appropriately in formal processes.	Encouragement of proactive and regular contact with support networks such as personal tutors/advisors; tutors; peers.
Value and promote continuous learning of all who support and facilitate the learning of others.	Reflective learning Tomozumi Nakamura & Yorks (2011)	Continuous professional development of those who support learning.	Technology enabled welcome, induction and support facilities to equip learners to develop digital pedagogy skills prior to and throughout the learning programme

Table 1: Principles and implications of effective pedagogy (adapted from James and Pollard 2011).

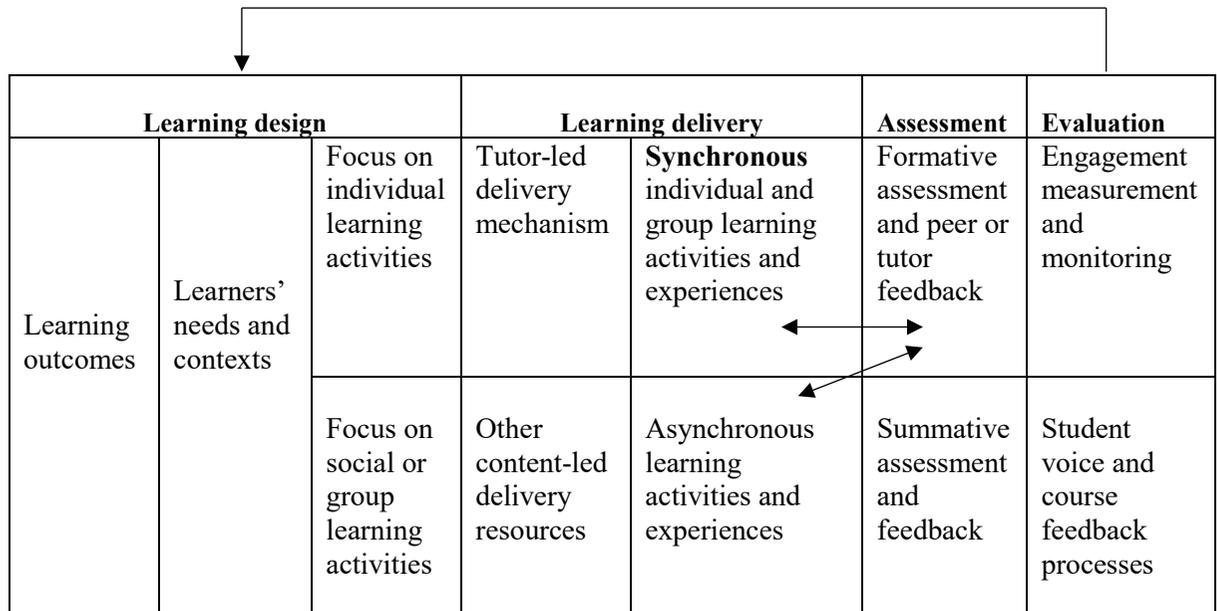| Learning design			Learning delivery		Assessment	Evaluation
Learning outcomes	Learners' needs and contexts	Focus on individual learning activities	Tutor-led delivery mechanism	**Synchronous** individual and group learning activities and experiences	Formative assessment and peer or tutor feedback	Engagement measurement and monitoring
		Focus on social or group learning activities	Other content-led delivery resources	Asynchronous learning activities and experiences	Summative assessment and feedback	Student voice and course feedback processes

Figure 1 – Components of the digital pedagogy pivot