

Hybrid HE: Knowledge, Skills and Innovation

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Abstract

This is a discursive article based on recent research into higher level skills gaps in the Tees Valley; it discusses what Higher Education in the UK may look like in the future, both in terms of curriculum and pedagogy. In the last twelve months a plethora of policy documents and initiatives (UK and beyond) focussed on future jobs and the importance of higher level skills have emerged, this paper attempts to put the findings of the Tees Valley research within this context.

Society is changing and one of the results of this is that new skills emerge along with the need for new ways of learning. The traditional model of full time university is no longer the only way to participate in higher education. Higher level learning needs to be flexible, adaptable and above all relevant.

Generic, transferable life skills emerge as one of the most important factors to consider when contemplating higher level skills. Not only are they what employers feel are lacking in graduates but they are also the skills that will help individuals to become competent and adaptable learners. With these attributes learners become better equipped to cope with the demands of ever evolving occupations in the future. Higher education needs to be multi-faceted; ensuring that individuals learn how to learn and also develop the relevant skills required by business. The research findings are contextualised by examples of current academic activity and curriculum developments with employers and employees in a University's business school in the North East of England.

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Introduction

In recent times there has been a focus (at a national policy level) on the importance of higher level skills (HE level skills at level 4 and above). The 'intrinsic value' of such skills are established in various contemporary governmental publications [for example *Higher Ambitions: The Future of Universities in a Knowledge Economy* (BIS, 2009a); *Skills for Growth: The National Skills Strategy* (BIS, 2009b) *New Industry, New Jobs – Building Britain's Future* (BERR, 2009)]. A common theme running through this suite of documents is the focus on future jobs, the central employment sectors, both new and existing (low carbon, life sciences and pharmaceuticals, digital communication and advanced manufacturing to name a few) and the higher level skills required to sustain and develop these jobs and industries. Moreover they give emphasis to continuously developing the workforce and crucially preparing them for industries and jobs which do not yet exist. These are the skills relating to science and technology but also those which help individuals to become entrepreneurial, innovative and creative. *Skills Supply & Demand in Europe: Medium-Term Forecast up to 2020* (Cedefop, 2010) puts these issues in a European context'. *Europe 2020 and New Skills for New Jobs* (both European Commission, 2010) focus on future skills needs and sustainable skills growth by suggesting that education and training opportunities are developed in ways which converge with the realities of the workplace.

Australia is seen as something of a leader in this area (See for example the *Aussie Blueprint for Career Development* - <http://www.blueprint.edu.au>). 'There is a significant trend in Australia to shift or link learning to outside the classroom into real environments through work integrated learning (WIL) activities' (Kay, 2010: 13). This is supported by the national work integrated learning portal (WiL) due to be launched in April 2011; a government funded development led by Victoria University and linking industry, the professions and the community with the higher education and vocational education and training sectors. This ethos is further exemplified across Australian educational approaches which are creative and innovative, including: placements; project work; work experience simulations; even virtual experiences of work integrated learning.

Current UK policy has grown from the themes of the 2006 Leitch Review, *Prosperity for all in the Global Economy, World Class Skills*, an influential piece of work when it was published. These shared themes include the connections between a highly skilled workforce and productivity/profitability and the need to therefore continually enhance and refine existing training and qualifications (in line with market intelligence). The review famously reported that 70% of the 2020 UK working population had already left school, in 2006, making employees the major target for any new skills strategy. One of the review's main aims was for 40% of adults to be qualified to Level 4 by 2020 (29% in 2005) and current figures suggest that this aim should be achieved. However, *Ambition 2020* (UKCES, 2009) claims that many of the other predictions of the review are unlikely to happen. This includes the UK raising its global position to within the top 8 countries in the OECD for skills, growth and productivity. *Ambition 2020* (2009) suggests that this would require more than 20 million new qualifications to be obtained. The National Skills Strategy – *Skills for Growth* (BIS 2009a), articulates the vision for the future development of skills in the UK by going beyond simply increasing the number of people with skills, to setting out ambitious plans for developing a system which 'delivers skills with economic value' (BIS, 2009a: 7). The targets and ambitions detailed in *Skills for Growth* demonstrate broadening of the Leitch targets and clear intent to develop an exceptional national skills system, including: promoting skills for economic prosperity; expanding apprenticeships; ensuring that the system responds to demand from business; empowering adults to equip themselves for future jobs; improving quality of educational provision and achieving 40% of the working population to be qualified to higher education level (level 4 or above) by 2020.

Recent research undertaken by Helyer and Lee (2010) considered these policy initiatives within a national and indeed global, strategic 'fit', whilst simultaneously focussing on the Tees Valley, its strengths and its needs by looking at some of its key sectors (including petrochemicals, digital media, logistics, advanced engineering and manufacturing). Interviews were undertaken with diverse companies, providers and agencies and an electronic survey was circulated amongst some 400 companies. A significant amount of quantitative and qualitative data was gathered, which was contextualised by undertaking an extensive review of national, regional and sector-specific literature relating to higher level skills and future economic growth and by auditing existing provision from local HEIs

(quotations from this Tees Valley report will be indentified with 'TVR'. The full report is available at: <http://www.teesvalleyunlimited.gov.uk/>) . By examining these two elements in tandem a number of general observations emerged, most significantly that whilst many of the issues raised by employers were specific to their sector and the Tees Valley, they could just as easily apply to the majority of sectors and regions across the UK. From the evidence gathered some clear themes emerged which can be explored in more detail within two distinct areas; the relevance of *what* is facilitated in an educational curriculum, and *how* it is facilitated, pedagogically and logistically.

Due to the demands and continual evolution of 21st century life new skills are emerging all the time. It is essential that the content of higher level educational opportunities reflects the rapidly changing environment of the real world. The companies surveyed expressed a willingness to participate in university level learning when the curriculum content is relevant to their business needs and their aspirations for their company and employees. They are looking for learning opportunities that help them to develop the skills, knowledge and attitudes required to diversify and expand, "The company needs to move into other areas of business in order to expand and grow; we will only be able to do this by investing in the right training for our employees" (TVR - Engineering Company).

HEIs, businesses, employers, employees, intermediaries and so on, need to talk to each other meaningfully. All parties (but sometimes particularly universities) need to translate their language to ensure a shared understanding and the growth of reciprocal relationships where all involved make efforts to sustain working together and pooling ideas for mutual benefit and development. This is the best way to ensure that innovative programmes are created, which meet all of the outcomes for employer, employee and HEI. Regular gathering and analysis of labour market intelligence by universities and appropriate bodies is part of this ongoing and dynamic dialogue and will ensure that skills strategies and the development and delivery of learning opportunities evolve and stay relevant, "We need more training providers who are prepared to talk to businesses and ask what our needs are and then fit in around them" (TVR - Engineering Company). It was obvious from company feedback that 'off the shelf' solutions have a limited usefulness.

The essence of this desired responsiveness and appropriateness is embodied by the success of a Foundation Degree in Leadership and Management developed collaboratively with a North East University business school and a regional business network (referred to here as the Case Study). This programme was conceived to develop leadership capability, viewing this as one of the major drivers for future economic growth. Central to this approach was the need to embed the key leadership and management skills into the programme which employers felt were important to them. The business network (with a membership of over 4,000 businesses) provided market intelligence and access to their membership along with key innovative design features. The University in turn developed a curriculum based upon the information which converged with suitable pedagogical methods and answered academic infrastructure issues:

The qualification has been developed with industry for busy managers. The practical approach used ensures work-based assignments have a positive impact on the business. It is designed to be flexible, modular and most of all motivational. The tutors and guest speakers are 'masters' in their fields of specialism and will add value to core business activities (University curriculum developer – Case Study).

The majority of the Tees Valley survey (Helyer & Lee, 2010) respondents cited generic workplace related skills as vital, perhaps delivered with a sector-specific slant (but not always), "We can help them with the subject skills – but it's often the generic skills which are lacking" (TVR - Interviewee from Sector Training Company). The frequently raised areas include leadership & management; business development; sales; communication; finance (in context); marketing; IT; legal issues; innovation and creativity and commercial awareness. Similarly, the CBI education and skills survey (2009) cites 35% of employers surveyed as dissatisfied with graduates' "business/customer awareness"; 20% dissatisfied with their self-management skills and only 30% as 'very satisfied' with literacy and communication (CBI & UUK, 2009: 14). In addition to the generic skills required employers responding to the Tees Valley survey widely claimed that young people specifically lack the key life skills needed to make a good employee. The Work Foundation suggest that one of the reasons for the rise in demand for generic skills is the eroding of sectoral boundaries in some instances. This erosion is connected to the massive growth in the knowledge

economy, “the knowledge economy is challenging existing sectoral boundaries – either the sector concept is largely irrelevant (the low carbon economy) or cuts across boundaries (the creative industries and ‘manu-services’” (The Work Foundation, 2010: 33).

In the above quoted CBI survey the majority of employers (82%) thought the HE sector should be focusing on developing current students' employability skills, rather than increasing graduate numbers, valuing quality over quantity. (CBI & UUK, 2009: 10). In *Ready to Grow* the CBI state that 70% of employers surveyed wanted to see the UK government making the employability skills of young people one of their top priorities (CBI, 2010: 6). Furthermore, *Ready to Grow* throughout cites employers as widely discussing the transferable employability skills they would expect a graduate, or an HE level student, to gain, and uppermost in these are presentation skills; thinking strategically and analytically; working independently and being creative. This is corroborated by respondents to the Tees Valley survey (Helyer & Lee, 2010), “employers expect graduates to be ‘oven-ready’” (TVR - Interviewee from Sector-wide Body). When pushed for a fuller explanation about what would constitute this ‘oven-ready-ness’ comments included sensible, autonomous, self aware, capable and knowledgeable. These were amongst the desirable elements which many of the companies surveyed felt could actively help to enable an individual to be a positive addition to their workforce. Subject knowledge was frequently taken as a given, in that when recruiting a graduate it was felt that their engagement with HE should also bring some discernible added value, over and above the subject area of their degree specialism.

Developing into a sought-after employee requires a complex mixture of elements; these may differ from job to job. In a rapidly changing employment market it is clear that the workforce of the future will need to be pre-emptive, adaptable and multi-faceted. It is unlikely that a 21st century worker will hold one position, or even one occupation, for their entire working life. They will work for longer than previous generations and in changing circumstances; this need for re-invention requires a receptive and self-aware person, with generic and transferable life skills honed and enhanced to cope with re-invention (Helyer, 2007). As Carl Gilleard (2010), chief executive of the Association of Graduate Recruiters, stated in the *Times Higher Education*, “a graduate today can fully expect to still be in the world of work in 2058. The one thing that we can be certain of is that we will be applying

skills that we haven't even thought of today. We will have to relearn and relearn and relearn" (Fearn, 2009). Similarly, Lester and Costley acknowledge that when planning for the future "...it is inadequate and inefficient to focus upskilling at a purely instrumental level...), indeed there is a growing need "...for people to be able to determine and develop the kinds of abilities they will require for their current and future roles" (Lester & Costley, 2010: 2). There is an emphasis here on the learner taking responsibility for their own continuous learning and development. It is when they engage with an HEI to perhaps formalise and/or progress what they are already learning at work, or what they anticipate they will require for a future role, that skills, abilities, expertise and knowledge can be captured and articulated, even in some cases validated.

Similarly learners on more traditional HE routes might have to take responsibility for finding and articulating the workplace and generic skills they are gaining from their subject specific course. Universities are seen as having "the ability to generate new knowledge and transform it into economic growth through innovative new products, processes and solutions" (BIS, 2010: 2), in order to live up to this reputation they must be prepared to not only continue to create and run ground-breaking courses and programmes to meet demand, but also to both offer and take advice on what they do in order to continue to evolve and remain valued, "...the workforce needs to be adaptable, flexible and dynamic – multi discipline programmes should be emphasised along with cross sector collaboration" (TVR - Interviewee from HE sector, Helyer & Lee, 2010). In order to produce flexible, adaptable and dynamic graduates HE itself must be flexible, adaptable and dynamic. The methods of and approaches to teaching are just as essential as the content of the curriculum, and must also be developed at the speed of light both in terms of shape and size of courses but also with regards to lecturers and tutors keeping abreast of developments within industry. It is generally programmes for employed learners that generally require different practices in terms of learning facilitation and learner support from those used for more traditional taught programmes (Boud & Costley, 2007; Stephenson *et al*, 2006).

It is widely acknowledged that employers favour short, intense courses and small bites of learning that are relevant to their business needs and easier to accommodate in their schedules. This was borne out in the Tees Valley research (Helyer & Lee, 2010), "More

than anything, training has to be business relevant and providers need to be very flexible in developing and delivering training packages that are tailored to individual needs” (TVR - Manufacturing/advanced engineering company). Universities of the future will need to increasingly offer initiatives capable of meeting this demand for short, tailored modules; schemes which employ flexible delivery and imaginative timetabling making it possible for employed learners to take advantage of what is on offer; HE in a manageable format which they can fit into their lives and employer demands. This entails the development of more non-traditional, part-time and alternative routes into HE as well as modules that are tailored specifically for the employer/sector (even if the subject is generic in nature). The above mentioned case study is an excellent example of a customised learning programme.

The partnership, between the North East University and the regional business network, was a result of key stakeholders working together with a common purpose; existing best practice was used to develop a new and exciting (employer and employee focussed) programme of learning and development. The opinions, expertise and needs of the multiple stakeholders involved with the creation and delivery of the programme were all taken into account and indeed monopolised on; the programme has undoubtedly benefited from the unswerving commitment and support of those at the most senior level within all of the key partners. The programme was delivered in sequential blocks of 2 months per module (with 12 modules) allowing for a flexible Step on/Step off facility. Skills are embedded into the programme's curriculum and are assessed through work-based scenarios which enhance the experience by bringing context and relevance. The blended learning approach adopted enables and supports each individual learner with their complex and often diverse learning needs, this approach makes a positive contribution to their ability to maintain an acceptable work life balance, either through the offsite and distance learning opportunities and support and/or through the step on/off feature, according to their individual needs. Other key features of the programme include: the opportunity to study modules independently; to be awarded a shorter, interim award such as a University Certificate of Continuing Education (UCCE); the opportunity to study a one year honours top-up programme (on completion of the foundation degree); taking advantage of an ongoing rolling programme which includes accreditation of prior learning (APL) opportunities; benefiting from significant use of a sophisticated Virtual Learning

Environment (VLE) for facilitation and communication; participation in a work based mentor system, and more. The flexible structure of the programme means that it can be tailored to focus on the skills employers and employees need to support future development and growth. Honest input from employers was invaluable, not only in the development process but also in delivery. This dialogue allowed employers to state what was important to them, for example, further study opportunities and clear and appropriate progression routes; the facility to progress seamlessly to a flexibly delivered top up degree meant that 29 from the first 150 students were able to instantly progress.

A good deal has been written in policy documents in the last few years about 'demand-led' learning; HEIs need to respond strategically to this employer demand whilst at the same time "recognising the longer-term picture that extends beyond the requirements of any individual employer, as well as the ability of higher-level development to create new capacity and opportunities through increasing the intellectual capital and overall capability of organisations, professions and industries" (Lester & Costley, 2010: 12). The research findings of Helyer & Lee (2010) would suggest that employers would like to have input into the courses that educational providers are designing and are much more likely to send their staff to attend a course of which they have influenced the content. This seems reasonable, especially as employers are often expected to make a considerable financial investment in their employees' development and the case study referred to in this paper proves the value of liaising with employers. However, universities need to exercise some caution in responding too eagerly to supposed demand as this can, on occasion, be 'knee-jerk' and profit motivated with no long term prospects. It is costly in terms of resources and staff hours to create new courses constantly and far more cost-effective to perhaps develop flexible frameworks which can be rapidly populated with differing content to fit different needs, and are especially valuable for work-based students (for example see the web-link: http://www.tees.ac.uk/sections/parttime/work_based_studies.cfm).

The cited case study foundation degree was built around such a framework and was developed and validated in an unusually short space of time because of this.

Now, more than ever businesses expect a speedy response from HE. In the current economic climate it is not enough to 'keep up', businesses know that they must excel, even

diversify, to survive – they need *new* skills, knowledge, expertise and ideas as well as improving those which already exist. Therefore, HEIs need to constantly assess their offer, enhance the curriculum and continue to develop through research and knowledge transfer if they are to respond to demand, but also be proactive. To support this intelligent evolution HEIs need to think widely and creatively about who they use to facilitate learning, ensuring that they include individuals who bring a broad and rich expertise to their curriculum and, if necessary, real life experience. Good tutors become “...a facilitator and an expert resource...[an] advisor and ‘academic consultant’” (Lester & Costley, 2010: 6). HEIs need to invite expert visitors to give lectures and host master classes, arrange work placement and work experience opportunities and partnering companies in research and knowledge transfer projects. Employers back this up, “practitioners are often the best qualified to train others and academics should work with them whenever possible” (TVR - Manufacturing Company). For example in the NE Case Study Small Group Activities (SGA’s), form part of their Master class concept; these involve local employers and organisations as case studies, examples and facilitators. This combination of practitioner and university based training has proved advantageous in developing generic skills synergistically with more sector specific learning. Typical student feedback is summed up by this student with experience of several work placement opportunities, “(They) have been both challenging and fun. The myriad of opportunities available have helped me broaden my horizons, but most importantly they have shaped what I am today - a confident well rounded individual prepared for the next big challenge” (Dobrea, 2010: 25).

As stated earlier employers are placing noticeable emphasis on generic and transferable life skills (at a higher level), for example, ‘being able to think laterally, having good analytical skills, being an effective communicator... employers are beginning to ask ‘Where are we going to find these skills?’ (Fearn, 2009). This, combined with the necessity to develop skills for future jobs that do not yet exist, presents significant challenges for HEIs. There has been a gradual change of emphasis for many HEIs, including more workplace focused activity (perhaps generic) and less stress on acquiring precise subject knowledge, more likely to be sector-specific (Andrews & Higson, 2008; James, 2002). This evolution has fuelled controversy around whether or not HEIs should be concerned with the development of employability skills and work-based-learning in their students (Helyer, 2010). Parallel to this

there has been a growing relationship between universities and industry, part of which is to ascertain the educational opportunities which employers require (Connor and Hirsch, 2008).

In the future it will not be enough to merely increase the number of HE students (as per Leitch), these students must have an HE experience which equips them with the skills they and their (future) employers require. This means embedding employability skills more explicitly into the HE learning experience but also developing people who can “...embrace the knowledge, imagination and analytical ability to adapt and learn new things over and over again” (UUK, 2010: 7). Students should finish their studies wanting (and able) to continue to learn and develop for their entire lives, enthused by the ethos of (relevant) continuous professional and personal development which has run throughout their higher level learning whether this has been on a university campus, at their workplace, electronically or by some hybrid combination of these, “we need to fundamentally change how individuals and businesses treat skills acquisition and development: from one-off experience in our youth to a lifelong commitment; from a business expense to an essential recurring investment in competitive advantage and business success” (UKCES 2010: 109).

Higher education has the capacity to develop the whole person and facilitate the achievement of both personal and professional aims, hence supporting the fulfilment of potential and assisting social justice. Vince Cable (2010b) argues that “the greatest gift bestowed by universities is “... learning how to learn, learning how to think; intellectual curiosity; the challenge and excitement of new ideas...”. Developing flexible, adaptable individuals who are competent and innovative learners is clearly of vital importance. It is not possible to completely predict the skills required by future technologies but it seems apparent that skills and abilities which combine being an intellectually curious and competent learner together with a problem solver whose attitude welcomes challenge and change can only be advantageous.

The policy documents discussed so far have largely been publications from the previous Labour Government. However emerging policy from the present Government makes it abundantly clear that it intends to look to the private sector to bring the UK out of recession; technology and knowledge-based sectors like advanced manufacturing, low

carbon, high tech and business services, and the cultural and creative industries. The strong emphasis on private enterprise requires versatile and entrepreneurial individuals. The Government has acknowledged the crucial role that skills, and more importantly, universities play in society; “one of the realities of globalisation is that the UK cannot compete internationally without high levels of private and public investment in sophisticated skills, knowledge and innovation” (Cable, 2010b). Furthermore UUK points out that, companies, HEIs, sectors and disciplines must work together strategically, “the economy of the future will be founded on the generation, transmission and exploitation of knowledge of many kinds, much of it dependent on the coming together of disciplines in innovative ways”. (UUK, 2010: 7)

Conclusions

As the move to a knowledge driven economy continues apace it seems clear that higher level skills will become even more important. Given that the majority of the 2020 workforce are already in the workplace HEIs need to think not only about the future generation who will enter the workforce but also up-skilling those currently in the workplace. It is apparent that the traditional model of higher education will no longer be the only option:

A highly skilled workforce is a pre-requisite for a knowledge economy. Knowledge-intensive businesses depend heavily on access to high level skills, both in terms of specialist knowledge and the ability to practically demonstrate a spectrum of generic employability skills that are crucial to participate in the knowledge economy” (The Work Foundation, 2010).

Although HE will change in line with market demands a number of key considerations will remain; what higher level learning entails (in terms of content), how it is accessed and delivered and the knowledge that learners bring with them, “progress towards the knowledge economy is transforming the world of work. Knowledge-intensive work depends on the use of ‘tacit’ knowledge that resides in people’s minds in the form of expertise or

experience, rather than being written down in manuals, guides lists and procedures” (The Work Foundation, 2010: 37). This paper prioritises higher level learning that is relevant, delivered in a flexible way, includes key employability skills and involves reciprocal input from HEIs, employers and employees.

There is increasing evidence to suggest that employers are focussed on improving the generic employability and life skills of the workforce, in particularly new graduates:

Employers are looking for ‘intelligent, rounded people who have a depth of understanding, can apply themselves, take responsibility and develop their role in the organisation (...) can demonstrate a wide range of attributes, not least the traditional high level academic abilities of analysis, reflection, critique and synthesis (Harvey, 2003: 6).

The suggestion here is clear, employability and education complement each other, rather than, the common perception, that they somehow damage and/or undermine each other. It is unhelpful, and untrue to only associate employability skills with ‘training’ and claim that it takes time away from studying a ‘real’ academic subject; the reality is that the two overlap considerably and many generic skills are successfully learned and enhanced whilst also studying a more precise academic subject; indeed many of the skills quoted in this paper as being those which employers value are the very same skills which enable HE level learners to succeed in their studies.

It is significant that the developments, evolutions and changes outlined above will need to be implemented at a particularly challenging time for an HE sector which it is being subjected to unprecedentedly large scale financial cuts, together with uncertainty and turbulence with regards to tuition fees and shrinking student places. These challenges are further compounded by the widespread cuts in the public sector, the combination of which signal a difficult path for HE and employers in improving higher level skills in the future workforce and helping learners to reach their full potential in the immediate term.

As Ian Brinkley has stated, the skills agenda historically has not moved speedily, “despite the immediacy of the problem and the negative consequences of delayed action, our skills system and the debates that surround it progress at glacial speed, if at all” (Brinkley, 2010: 37). Indeed Lorna Unwin, Professor of Vocational Education at the Institute for Education, talks about the “acute sense of *déjà-vu*” that “permeates analyses of the labour market and skills’ policies over the past 30 years” (Unwin, 2010). Given the current economic situation, and the urgent need to revive the UK economy, ‘there has never been a greater need for government, employers and universities to agree a shared vision for higher education” (Gilleard, 2010). At present it is difficult to pinpoint exactly what this shared vision is but most certainly it will include flexible hybrid models of learning that are developed collaboratively and include subject specific (academic) content alongside softer generic (employability) skills. It is important that these models not only reflect the pressing needs of employers but create individuals who are innovative and adaptable learners who can continue to learn and acquire new knowledge and skills in the future in a proactive and self-driven way.

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Ruth Helyer is Head of Workforce Development (Research & Policy) at Teesside University; formerly the Programme Leader of the University's work-based studies programme, she has a particular interest in producing such tailored programmes for employed learners. Her research interests encompass all aspects of business-facing activity; she has also lectured and published widely in the field of English Studies. Recent publications include, *The Work-based Learning Student Handbook* (Palgrave Macmillan, 2010), 'Employer Engagement: the new widening participation?' in the *Journal of Widening Participation and Lifelong Learning* (December 2008) and *Higher Level Skills in the Tees Valley* with Dionne Lee (Tees Valley Unlimited 2010). This latest piece of research investigates the higher level skills gaps within the workforce of key sectors in the Tees Valley and includes a wide range of respondents. She is currently working on a new book focusing on HE level generic, employability and life skills.

Dionne Lee is a policy officer for the Vice Chancellor's Executive at Teesside University. Her role encompasses a wide range of policy related activities across a broad spectrum of areas including student experience, skills, employer engagement and fees. Prior to this Dionne worked as an external funding manager in the further education sector. In her current role Dionne has undertaken a number of research projects (mainly internal). She has recently published *Higher Level Skills in Tees Valley* (commissioned by Tees Valley Unlimited) with Dr Ruth Helyer, Head of Workforce Development (Research & Policy) which investigates the skills gaps within the workforce of key sectors in the Tees Valley (advanced engineering; digital media; logistics; energy & petrochemicals).

Adrian Evans is currently the Director of Corporate Programmes at Teesside University Business School. He was recently the Managing Director of *'Mission Antarctica'* and has over 20 years experience of leadership and management development across a diverse range of sectors and learners with current interests in work-based learning, innovation and creativity.

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