

Roger Harris · Tom Short *Editors*

Workforce Development

Perspectives and Issues

 Springer

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Roger Harris
Tom Short

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List of Abbreviations

ABS	Australian Bureau of Statistics
AHRI	Australian Human Resources Institute
AIPM	Australian Institute of Project Management
ALL	Adult Literacy and Life Skills Survey
ANZSCO	Australia and New Zealand Standard Classification of Occupations
APM	Association for Project Management (UK)
APESMA	Association of Professional Engineers, Scientists and Managers Australia
AQF	Australian Qualifications Framework
ARA	Australasian Railway Association
ASQA	Australian Skills Quality Authority
BOKs	Bodies of Knowledge
CA	Competence Assurance
CEO	Chief Executive Officer
CHRD	Critical Human Resource Development
CIPD	Chartered Institute of Personnel Development (UK)
CMS	Critical Management Studies
CPM	Complex Project Manager
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
ED ² O	Environment, Design and Delivery, and Outcomes
ESL	English as a Second Language
EU	European Union
GFC/GEC	Global Financial Crisis/Global Economic Crisis
HELENA	Higher Education Leading to Engineering and scientific careers
HR	Human Resources
HRD	Human Resource Development
HRM	Human Resource Management
IALS	International Adult Literacy Survey
IBM	International Business Machines
ICCPM	International Centre for Complex Project Management (Australia)
ICF	International Coach Federation

ILM	Institute of Leadership and Management (UK)
IPMA	International Project Management Association (EU-based)
IT	Information Technology
LLN	Literacy, Language and Numeracy
MBA	Master of Business Administration
NCSAL	National Center for Study of Adult Literacy (USA)
NLP	Neuro-Linguistic Programming
NMP	New Management Practices
NRDC	National Research and Development Centre (UK)
OD	Organisational Development
OECD	Organisation for Economic Co-operation and Development
OSCD	Organisational Support for Career Development
PC	Personal Computer
PIAAC	Programme for the International Assessment of Adult Competencies
PM	Performance Management (in Chap. 8) Project Management (in Chap. 9)
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute (USA)
P2M	Project and Program Management for Enterprise Innovation (Japan)
PR	Public Relations
QC	Quality Circles
RBLL	Recovery-Based Leading and Learning
RBTNA	Risk-Based Training Needs Assessment
RCC	Recognition of Current Competency
ROE	Return on Expectation
ROI	Return on Investment
RPL	Recognition of Prior Learning
RSCC	Rail Skills and Career Council
RTO	Registered Training Organisation
SOL	Skilled Occupation List
SPAD	Signal Passed at Danger
STEM	Science, Technology, Engineering and Mathematics
TB	Team Briefing
UKRC	UK Resource Centre for Women in Science, Engineering and Technology
UNESCO	United Nations Educational, Scientific and Cultural Organization
VAL	Virtual Action Learning
VET	Vocational Education and Training
VTS	Vienna Testing System

Contributors

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Chapter 1

Exploring the Notion of Workforce Development

Roger Harris and Tom Short

Abstract Workforce development is a relatively new concept that extends beyond training, and is increasingly used by educationalists, policy-makers and scholars. It draws on human resource development and management, workforce planning and workforce capability development, and is often highlighted in debates on skills shortages where there is a need to increase the pool of skilled workers in critical industries. The literature has claimed that the concept takes us in new directions, and is not merely more of the same. But what does workforce development mean? This chapter opens the book with an analysis of the concept of workforce development, why it has become prominent now and why this book has been written. It then introduces the chapters to follow that serve to illuminate different perspectives and issues that together comprise what we term workforce development.

Introduction

It was six men of Indostan
To learning much inclined,
Who went to see the Elephant
(Though all of them were blind),
That each by observation
Might satisfy his mind. (Saxe, in Linton 1878, pp. 150–151)

This book explores and interrogates the notion of workforce development. The chapters in this volume grapple with the notion from a range of different perspectives, though all share the underlying belief that workforce development is increasingly important for the sustainable growth and indeed very survival of organisations in the current environment of the post-global financial crisis.

In many ways, trying to explicate this concept is rather like the proverbial story of the sight-impaired people wanting to know what an elephant was like, and arriving at different understandings depending on what part of the elephant's body they were

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touching. One believed that the object was a tree or pillar (its leg), another a snake or thick branch (its trunk), another a rope (its tail), another a wall (its side), another a spear or solid pipe (its tusk) and yet another a large fan (its ear). There can be so many different perspectives on workforce development with each user of the term approaching it from a different perspective that it might appear to be too difficult to grasp and interpret. So what does workforce development mean? Why has it become prominent now? In this chapter we open the book with an analysis of the concept of workforce development and its increasing importance, and explain why the book has been written. We then introduce the chapters to follow that illuminate the different perspectives and issues that together comprise what we term workforce development. With the understanding that the whole is usually the sum of the parts, what these chapters do is unveil the many perspectives and themes (the elephant's discrete body parts) so that we may be able to comprehend more fully the notion of workplace development (the whole elephant). What each reader needs to keep in mind in progressing through the book, however, is the fundamental question of whether the whole is actually more than the sum of these parts!

What is Workforce Development?

In exploring this notion, we start with two key observations. First, it is a relatively new concept, now increasingly being used by educationalists, policy makers and scholars. Hall and Lansbury (2006, p. 584) stated that the concept of workforce development first appeared in the mid-1990s when Harrison et al. (1995) differentiated between 'employment training', which they claimed focuses on the skills supply side, and 'workforce development', which seeks to incorporate the nature of employer demand. Their conception of workforce development extended the notion beyond training to include human resource management and development activities, including collaborations with other organisations, recruiting, job matching, mentoring and retention (Harrison and Weiss 1998). A decade later, Comyn (2008a, pp. 3–4) reported that, while the concept had yet to significantly influence policy dialogue in the European Union, at the national level many EU governments were adopting different policies in their attempts to move away from the low skills trap and instead focus on workforce development. He also commented on many other governments in the UK, Europe and Asia starting to use the term in their policy dialogue, with the most influence in the UK, particularly through the workforce development initiatives of the UK Learning and Skills Council.

One of the first acknowledged uses in Australia was by the Government of South Australia, which adopted the term in 2003 as the overarching concept for its strategy to raise the quantity and quality of skills in the State. In the final report of the Ministerial Inquiry, *Skills for the future*, workforce development was defined as

those activities which increase the capacity of individuals to participate effectively in the workforce throughout their whole working life and which increase the capacity of firms to adopt high performance work practices that support their employees to develop the full range of their potential skills and value. (Government of South Australia 2003, p. 7)

Thus workforce development is perceived here as activities that build the capacity of both individuals and companies. The Inquiry believed that new language can capture and reflect new ideas, change mindsets and transcend organisational boundaries, and that the existing language of ‘education and training’, ‘VET’ and even ‘skills formation’ was not adequately capturing the skills dynamics in the contemporary world of work where skill content is changing and where skills are being developed formally and informally in multiple contexts and through multiple pathways. Workforce development was therefore chosen for the three reasons that it recognises the links between skill and the way work is organised, it is a cross-cutting issue and it is a simple, accessible and marketable term meaningful to industry, the community and education and training institutions alike (Government of South Australia 2003, p. 20).

On the national stage, Skills Australia, established in 2008 and relabelled the Australian Workforce and Productivity Agency only in July 2012, is an independent statutory body that provides advice to the Australian government on current, emerging and future workforce skills and workforce development needs. This body published its inaugural National Workforce Development Strategy, *Australian workforce futures*, as recently as March 2010, and its second, *Future focus*, in March 2013. These strategies recommended a fundamental overhaul of the way the nation approaches and supports workforce development—at a national, industry and enterprise level. So the concept (even if not the practice) is new at a national level, at least in Australia.

Second, the concept extends beyond the training of individuals. The Australian Workforce and Productivity Agency officially now defines workforce development as

those policies and practices which support people to participate effectively in the workforce and to develop and apply skills in a workplace context, where learning translates into positive outcomes for *enterprises*, the *wider community* and for *individuals* throughout their working lives. (Skills Australia 2010, p. 67, emphasis added)

There is clearly an emphasis here on both policies and outcomes, with learning at the levels of individuals, companies and society. In fact the sequencing of the three beneficiaries of this learning may well be significant—the furnishing of organisational and societal benefits *before* individual ones. These definitions lead us to recognise, therefore, that there are different perspectives on workforce development.

There are at least five main perspectives. The most visible and clearly understood is the perspective of the *individual*. The danger of exclusively concentrating on this perspective on workforce development is it can so readily lead to a resumption (or maintenance) of the narrow interpretation of the concept as training. A second perspective is the *organisational*, within which employers focus on the skills their business needs to remain competitive in the global marketplace. Third is the *industry* perspective, where companies within a particular industry may strive for harmonisation for such purposes as reducing costs through sharing of resources and/or maintaining viability of their industry. A fourth perspective is the *community or region*, which community and economic developers and mayors may invoke with regard to the sustainable economic growth of their towns and/or regions (Haralson 2010). At the broadest level is the *societal* perspective, which national governments have in mind when they are developing national workforce development strategies

(such as the two published by Skills Australia in 2010 and the Australian Workforce and Productivity Agency in 2013), or establishing fresh targets for raising the educational levels of their citizenry (such as those set by the Council of Australian Governments (COAG 2010) in its *National Agreement for Skills and Workforce Development*). Thus, people operating in different spheres of a society and economy are highly likely to perceive the concept of workforce development, like the blind people feeling the elephant, in very different ways and arrive at very different interpretations. The capacity to reconcile different sets of goals across these many perspectives, according to Haralson (2010, p. 2), will become the defining feature of any integrated workforce development strategy. According to the Aspen Institute, this implies a comprehensive approach to workforce development involving substantial employer engagement, deep community connections, career advancement, human service supports, industry-driven education and training, and the connective tissue of networks. The chapters in this book focus primarily on the organisational, with some reference also to the individual and industry perspectives.

To many the world seems increasingly complex, uncertain and ‘messy’, and the contexts in which we live and work are often experienced as unstable and constantly shifting. This is being felt particularly after, and in some places still within, the global financial crisis. In dealing with and making meaning of such a world and in particular its workplaces, there is a need to lift our gaze and shift focus more to learning than training, more to learners than instructors and more to whole organisations than training departments. This will then begin to lead us towards an understanding of what workforce development means.

With the need for agile organisations and adaptable workforces, the search continues for new ways of thinking and acting. Indeed, training professionals are increasingly being required to understand the broader context in which they operate, as workforce development seeks to bridge individual, organisational and societal interests in ways that are meaningfully and mutually beneficial (Harris and Short 2013). For example, evaluation theorists, such as Kirkpatrick and Kirkpatrick (2006), draw our attention to the need to go beyond the first level of post-course opinions (‘happy sheets’)—what we might call the ‘spray and pray’ approach—to understand the impacts of training programs at the deeper levels of knowledge acquisition, behavioural change in the work environment and longer-term effects on the whole organisation. Curriculum theorists, such as Glatthorn et al. (2008), alert us to the fact that there are various ‘shades’ of curriculum, and that there are often serious disjunctures between the ‘planned’, the ‘taught’, the ‘learned’ and the ‘assessed’ curricula that require our urgent attention. Workplace learning theorists, such as Illeris (2011), and Hager and Hodkinson (2009), highlight the problems in assuming transfer of learning between training room and workplace and how transfer, in fact, may be a totally inappropriate metaphor for thinking about most learning, especially vocational learning. Proponents of social learning, such as Wenger (1998), remind us about situated learning and how much of our learning derives from social participation in the workplace that involves not merely engagement in activities, but being active participants in the *practices* of social communities and constructing *identities* in relation to these communities—with participation in work teams as a key example. And critical theorists, such as Bratton et al. (2008), constantly prick our consciences to challenge

the assumptions underlying workplace learning and to pose the difficult questions, like ‘who benefits from workplace learning?’, ‘what kind of learning is valued in the workplace?’, ‘who is included (or excluded) from workplace learning opportunities?’ and ‘from the standpoint of the disadvantaged, what can be done about it?’.

Change, in this case from a training to a wider workforce development perspective, takes time. We cannot expect instant adoption—developing new skills, effecting shifts in policies and practices, and the building of mutual trust need considerable patience. In fact, March and Olsen (1983) suggested that the role of a change agent is more like a gardener than an engineer: it takes time to cultivate and bear fruit. In his extensive overview of the literature on workforce skills and innovation for the OECD, Toner (2010) concluded as one of his major findings that the predominant form of innovation in firms is incremental, which highlights the key role of the broader workforce in the generation, adaptation and diffusion of technical and organisational change. The ferment of change over the past couple of decades has seen considerable restructuring by organisations as they undergo massive cultural change, strive to transform their organisational character and search for competitive advantage. Changes to work and the organisation of work have tended to shift the emphasis from individual competence to organisational capability, for which workforce development is a critical vehicle. Yet the meaning of organisational capability itself remains opaque, there is a deal of confusion in the literature and there do not yet appear to be accepted ways in which to define such concepts (Harris 2007). So it is hardly surprising that a lack of clarity and consistency persists. Is it any wonder that there remains ‘a rather thick terminological haze over the landscape where capability lies’ (Winter, quoted in O’Regan and Ghobadian 2004, p. 293)?

From a distillation of definitions of organisational capacity, the following is a succinct and useful one: ‘organisational capability refers to an organizational ability to perform a coordinated task, utilizing organisational resources, for the purpose of achieving a particular end result’ (Helfat 2003, p. 1). Yet the issue of resources is an interesting one. Organisations have unique resources, and they are not productive in themselves—they need to be translated into capabilities by being managed and coordinated. So it is how the resources are used that largely determines performance differences in organisations. These resources include: (a) the tangible: financial, physical, (b) the intangible: technology, reputation, culture, and (c) the human: specialised skills and knowledge, communication and interactive abilities, motivation (OpenLearn 2006). Haertsch (2003, p. 1) has written about the alignment of three different forms of capital. What is ‘central to the building of the organisation’s capability’ is the combination of human capital (people skills and knowledge), social capital (relationships between people) and organisational capital (the organisation’s processes), and aligning them such that each supports the others. While the concept of organisational capability remains elusive, there are a number of elements that can be identified—like pieces jumbled in a jigsaw box. The trick is to (re)configure the various elements into a shape that ‘fits’ the unique environment of any particular organisation. Within that mix, the jigsaw piece that is workforce development forms an essential component of the overall picture.

The concept of workforce development draws on several disciplines, including human resource development (e.g. Comyn 2008b, p. 1; Hall and Lansbury 2006,

p. 584), human resource management (e.g. Staron 2008, p. 2; Hall and Lansbury 2006, p. 584), workforce planning (e.g. Comyn 2008b, p. 1) and workforce capability development (e.g. Staron 2008, p. 2). It is often highlighted in debates on skills shortages that there is a need to increase the pool of skilled workers in critical industries, though Macindoe (2008) claims that the evidence to condemn the training system for not producing enough skilled workers is rare indeed. The concept in fact takes us in new directions, and is not merely more of the same (Macindoe 2008, p. 3). Many still have a limited view, perceiving it as (a) identifying and filling current and future jobs in an organisation, or (b) professional development—the training of individual employees, or (c) technical education and meeting skills shortages. The difficulty with such lack of focus is that it has resulted in *ad hoc* approaches that have not been integrated within and across organisations and therefore tend not to be sustainable (Staron 2008). In this volume, therefore, we are conceiving workforce development as an umbrella term for an integrated and holistic approach involving a range of strategies, activities and policies that organisations can put in place to support them shifting from where they are to where they want to be. Accordingly, Chaps. 2–19 each tackle different facets of this notion of workforce development, before Chap. 20 summarises and points to some possible directions for the future.

Why Now?

Scholars such as Jacobs and Hawley (2007) claim that the drivers for workforce development come from the convergence of five interrelated factors: globalisation, technology, new economy, political change and demographic shifts. Globalisation has given rise to unrestricted flows of people and information across borders, and has fostered competition between nations and thus a focus on workforce development. Technological change creates the need for continual development of the workforce. The new economy, characterised by free-market capitalism, has generated new job classifications and the need for training. Political changes such as the emergence of the EU as a single marketplace, greater openness to foreign investment, changes in national financial systems and movement towards democratisation and private ownership have stimulated shifts in national training systems. And demographic changes like the retirement of the Baby Boomers and the emergence of the relatively large Generation Y create the need for different types of development in the workforce.

In this book we contend that a fundamental reason why the concept has emerged now is the realisation that addressing problems effectively in an increasingly complex environment relies greatly on the *confluence* of different perspectives and actions. An analogous situation is the current emphasis on the whole-of-government (or joined-up-government) approach to solving societal problems. Such an approach seeks to apply a more holistic strategy using insights from other social sciences than just economics, and using coordination and integration strategies (Christensen and Laegreid 2007; Mulgan 2005). In this light, it can be seen as the opposite of ‘departmentalism’, tunnel vision and ‘vertical silos’, and seeks to achieve horizontal and vertical coordination in order to eliminate situations in which different policies undermine

each other, so as to make better use of scarce resources, to create synergies by bringing together different stakeholders in a particular policy area, and to offer citizens seamless rather than fragmented access to services (Pollitt 2003). If we now apply this thinking to the workplace, workforce development may then be perceived as a ‘whole-of-organisation’ (or ‘joined-up’) approach to its workforce and productivity that stretches well beyond training as it intersects with many other strands of organisational policy and practice and aligns with the organisational mission and objectives.

Why This Book?

The genesis for this book has been the research undertaken by most, though not all, of the chapter authors for the Australian Cooperative Research Centre for Rail Innovation (hereafter CRC). Their chapters are ‘spin-offs’ from this research, extended and reframed to make the chapters more generic to workplaces in general. Naturally, however, in some of the chapters data included or case studies presented necessarily relate to the Australian rail industry. These have been incorporated merely to furnish recent examples that may help to clarify workplace development issues and perspectives for readers situated in other industries and countries. This CRC is a consortium of 19 Core Participants (including seven universities), 14 Supporting Participants and 8 Other Participants, collaborating in a seven-year program of research (CRC 2013). The total program has been worth over A\$100 million (cash and in-kind), with funds coming from the Australian government, participating rail companies and participating universities, and in-kind from rail companies and especially the universities. It is the single biggest research program in the history of Australian railways. The editors of this volume are the Leader and Deputy Leader respectively of the Workforce Development Theme in this CRC, while 17 of the 20 chapters have been written by university researchers engaged in research projects for the CRC.

That explanation of the genesis then leads to the question of why this book. There are two main reasons, relating to breadth and depth. Much of the work in this volume is underpinned by applied research carried out by the contributors on their particular topics for the CRC. The ideas in this book have evolved from these various research projects, where the writers have elaborated and reshaped their work. They have, of course, submitted their respective research reports and useable products to the CRC as a requirement of their funding. These, however, were developed with the Australian rail industry firmly in mind and for its use. As university researchers, the contributors have presented at numerous conferences and workshops on their specialist research topic, but these run the risk of being heard only by attending audiences. They have also published in journals in their areas, but again these are most likely to be read only by relatively few in specialist research fields. We, the editors, desired to have this excellent research work aggregated into *one* volume that could be readily accessed by a far wider readership through publication as a book by a publisher with worldwide reach. This was our first and more pragmatic reason for this endeavour.

The second reason is more fundamental. The editors, with backgrounds in adult education and human resource management, had become increasingly intrigued with the emergence of the term ‘workforce development’. We puzzled over whether this was merely another marketing fad or buzzword, old wine in old bottles, or whether it was a genuine attempt, new wine in new bottles, to encapsulate the need to reconceptualise organisational policies and practices in a post-global financial crisis world? (Chap. 20 revisits this question.) We desired to collate the ideas from all of the hitherto discrete components in our research program into one volume in order to explore and interrogate this notion more deeply not only for the educational enlightenment of ourselves and our chapter writers, but also for considered and no doubt critical analysis by a wider audience who may well be wrestling with similar issues and concerns. Hence, this volume became focused on perspectives and issues. For the same reasons, we are also compiling a companion volume that will focus more on strategies and practices for workforce development.

The book is intended to have wide appeal and will be of value to executives and senior human resource practitioners. Additionally academics, students, human resource developers and adult educators who work across multiple disciplines such as business, psychology, education and the social sciences will find value in this collection of issues and perspectives. We believe the knowledge and learning in each chapter will transfer across many boundaries and borders, at the same time recognising the similarities, differences and relevance to a wide range of industrial contexts.

What is the Structure of this Book?

Chapters 1 and 20 constitute the bookends, respectively introducing and closing this volume. In between, the other 18 chapters are clustered in four parts that the editors and contributors considered were prime overarching facets in workforce development. Part I focuses on organisational capability, with themes of maintaining sustainability, building growth and promoting diversity. Part II addresses the development of individuals in the workforce, with themes of human capability and capacity building. Part III concentrates on innovative ways in which workforce development can be carried out, with the theme of innovations in learning and development. Part IV looks forward at changing perceptions and possibilities, through such themes as workplace spirituality, the role of evaluation, and critical perspectives on workforce development.

Part I, ‘Sustainability, Growth and Diversity’, comprises six chapters. Michelle Wallace, Ian Lings, Roslyn Cameron and Neroli Sheldon in Chap. 2 focus on the key issues of attracting and retaining talent, and branding and industry image, all prime concerns for organisations in increasingly competitive global labour markets. In doing so they are discussing the work of two functions within organisations: HR and marketing/communications. They argue that organisations need to strategically align these two functions, as well as to attend to the branding of both their organisation and their employees, if they are to be successful in attracting and retaining talent. The alternative is likely to lead to weaker applicants, disengaged and resentful employees, higher turnover and ultimately reduced organisational performance.

From attraction, retention and image, we turn to skills migration, a significant issue for sustaining and developing workforce capacity in an increasingly global economy. Peter Kell, Roslyn Cameron, Deborah Joyce and Michelle Wallace in Chap. 3 examine international trends in global mobility, before considering Australia's migration policies and skill shortages, and the opportunities, threats and dilemmas for Australia. They argue that global competition has profoundly affected, and itself been influenced by, changes in government policies that favour short-term, temporary work rather than long-term settlement. Thus organisations and industries reliant on professionals—such as engineers—are experiencing difficulties in sustaining their pipeline of experienced and qualified workers in a policy environment subject to considerable shifts and global competition.

The related issue of career paths and their challenges and opportunities is the third perspective, provided by Neroli Sheldon and Michelle Wallace in Chap. 4. With blurring organisational boundaries and altering employment relationships, the notion of career path has changed markedly and become somewhat ambiguous. The authors highlight benefits for both employers and employees in having career paths. However, their research suggests that learning and development and career path opportunities are likely to be restricted to certain sectors of the workforce: core workers, with high-demand professional or managerial skills sets and who work in large organisations, while others are often restricted to relatively precarious work arrangements. That responsibility for professional development and career development has shifted from the organisation to the employee only makes their situation more problematic. Thus organisations continue to have an important role to play in career development of staff to support the continuation of their strategic plans and because staff capacity is central to the viability of organisations.

Lisa Davies in Chap. 5, on skills recognition and recognition of prior learning for workforce development, examines the challenges and possibilities, and how these processes have been frequently identified as ones that can be used to increase productivity, engagement and satisfaction of workers. However, she identifies a number of issues involved in these processes, such as differing views about what they mean and how they can be used, in addition to ethical concerns that need to be considered. The author's conclusion is that, undertaken transparently, with a sound knowledge of how to process applications wisely, and with support for applicants, skills recognition can benefit both the employer and the employee while also meeting policy needs.

In Chap. 6 Katie Maher draws attention to the skills and knowledge that Indigenous Australians contribute to Australian industry. She analyses how predominantly non-Indigenous employees and employers in the rail industry perceive equity and Indigenous capability, and the implications of such perceptions for the recognition of skills and knowledge of Indigenous employees. She identifies a number of 'problems', as well as a number of assumptions held by employees and employers and some of the myths inherent in corporate structures and practices that can impact upon recognition of the capabilities of Indigenous employees. She argues that being serious about recognising the capabilities of Indigenous people requires ensuring that the existing knowledge and skills of Indigenous Australians are recognised and

valued. It also requires ensuring that all jobs are open to Indigenous people, including leadership positions, management and skilled roles. Indigenous employment equity will not be achieved while assumptions of Indigenous incapacity, which work against the goals of Indigenous equity, remain among the workforce and within its standards and systems.

The final perspective in this part is Chap. 7 in which Michelle Wallace and Neroli Sheldon consider women and engineering as a workforce development issue. Engineering expertise is critical to the economic innovation and productivity of nations through the production of knowledge, patents and technology. However, there is growing worldwide shortage of engineers, and an under-representation of women studying or working in engineering roles. The authors discuss the role of early socialisation, schooling and university education in contributing to the low levels of girls participating in science, technology, engineering and maths (STEM) subjects needed to study engineering, the gender disparity in engineering courses, as well as the leaky pipeline of qualified women into the engineering profession. They identify some initiatives to resolve the situation that they find heartening. However, engineering remains heavily male-dominated in many countries. They conclude that industries, such as rail, need to work closely with policy makers, education systems and professional bodies to support cultural and attitudinal changes so that more young women are prepared for and participate in STEM careers.

Part II, 'Human Capability and Capacity Building', moves from these broad-ranging, organisational perspectives on sustainability, growth and diversity in the first part, to embracing more pragmatic, individual perspectives of relevance to workforce development. This part also includes six chapters. Chapter 8 by Tom Short, on transitions in workplace communication and the efficacy of formal workplace mentoring, discusses this emerging practice and how company-initiated mentoring programs have become the latest trend in a long line of communication techniques used by human resource managers to engage employees. He finds that mentoring shares common elements with three widely used workplace communication strategies deployed over the last three decades: team briefing, quality circles and performance coaching. In an era when workplace communication methods have become more individualised, cybernetic and 'just-in-time', the author questions whether workplace mentoring is just another silver bullet aimed at driving performative behaviour, or something more altruistic and directed towards the wellbeing of employees. He concludes that, unlike other forms of team-based communication, mentoring recognises the needs of the individual at work, their need for personal development, psycho-social support and above all long-term guidance from a significant other.

In Chap. 9 on building workforce competencies through complex projects, Andrew Sense and Senevi Kiridena analyse current theories and concepts concerning complexity and the project management workforce competencies necessary to deal with it in projects. They unveil the valuable, yet underutilised, opportunities that complex projects may present to develop the knowledge and competencies of a workforce to manage complexity successfully within a project space and across an organisation more generally. Their chapter highlights the current strengths and weaknesses of extant research and standards concerning complexity in projects and provokes

discussion on developing a workforce that is more ‘complexity’ capable. The authors conclude that the conception and issues about project management complexity outlined in their chapter may help practitioners, and project management-based organisations in particular, to reassess and interpret their complexity training and development needs—ultimately leading to the deployment of targeted and customised education and training options on this topic.

Liza O’Moore, Lesley Jolly and Lydia Kavanagh in Chap. 10 consider competence assurance, and in particular two issues that both the literature and their fieldwork identified as significant problems: defining competence and reliably assessing competence. They argue that shifting the emphasis from complying with regulations to developing a workforce helps clarify and deal with these issues. They outline the potential for competence assurance processes to be harnessed to the cause of workforce development, but suggest that industry will need to recalibrate its approach to competence assurance if this is to happen. Specifically, this requires a change from using competence assurance to check on basic competences to identifying what potential skills exist in the workforce and to what degree. The authors argue that a ‘portfolio’ approach to collecting and using such information will best suit the needs of those who are seeking ways of improving their own skills and the performance of their workforce. Workforce development through competence assurance may also require a change of assessor to ensure that a holistic view is maintained, an increase in the granularity of assessment to allow for skill development, and targeted follow-up sessions to maximise the potential for learning from assessment.

In Chap. 11, Tom Stehlik, Tom Short and Janene Piip examine leadership and management development. They discuss organisational leadership from a historical and theoretical perspective to identify issues and challenges for leadership into the twenty-first century. The chapter addresses leadership and management theory, the global context, changing demographics and mobilities of workers, and contemporary perspectives on organisational structures. The authors then ground the discussion in a case study of leadership in the Australia rail industry as an example of a large, established enterprise that is facing contemporary challenges in moving towards a workplace culture based on workforce development models rather than traditional hierarchical structures and bureaucratic processes. Leadership capability is becoming the important variable in enhancing management performance and building organisational capacity. Future managers in traditional organisations need a complex blend of technical, administrative and people management skills to ensure output is achieved. Organisations are currently investing significant budget amounts on leadership development projects. However, the authors conclude that there is a universal lack of robust evaluation of leadership programs, especially those that fail to identify the effectiveness and long-term outcomes of funds invested. Without robust evaluation tools and continuous improvement processes, organisations are more likely to make mistakes on an ongoing basis that are both costly and time-consuming.

The issue of how to identify and develop talent in organisations is an important one. Janene Piip and Roger Harris in Chap. 12, shining their spotlight on talent identification and management, reflect on how as a sheer matter of survival companies need to know what it is that they are looking for in their leaders, make the full use of

the talents of all leaders and be prepared to adjust their talent management strategy as environmental conditions change. Since leadership in organisations is now more complex than ever before, talented leaders can translate company purpose and intent to people in teams, engaging their commitment for enhanced business productivity. The authors explore how organisations are making sense of these realities, by presenting information from the literature and a recent case study in Australia. They outline a useful framework that can assist decision making on the identification and development of leadership talent in contemporary organisations.

John Benseman in Chap. 13 considers the challenges of literacy, language and numeracy (LLN) issues in contemporary workplaces, in Australasia and internationally. Though there has been growing interest in the role of LLN programs in changing workplace practices, there has been a surprising dearth of rigorous research about this form of provision and in particular about its impact on the workplace until quite recently. The author identifies three noteworthy studies that have endeavoured to map the impact of workplace LLN programs with extensive research designs—in the UK, Canada and New Zealand. He concludes that LLN issues are a relatively new entrant to the mix of workplace training factors. Yet LLN skills are not only important skills in their own right; they are also a prerequisite for all other forms of workforce development. The author contends that, while there are many initiatives underway in our education systems to improve LLN skills, they are unlikely to ‘solve’ the LLN problem any time soon. The reality is that post-school education, and especially those sectors where there are disproportionately high numbers of adults for whom schools failed, will need to wrestle with these issues for certainly the foreseeable future. The question is not whether or not to respond to LLN issues, but how.

Part III, ‘Innovations in Learning and Development’, comprises three chapters that consider a number of interesting and innovative ways in which learning and development can occur in the workplace. In Chap. 14 Roslyn Cameron and Medhi Ebrahimi investigate the use of coaching as a workforce development strategy. It is enjoying considerable popularity mainly for individual development, leadership and building capacity and employee engagement. The authors discuss some of the key characteristics of coaching, defining it and differentiating it from other similar interventions such as workplace counselling, training and mentoring, and analysing data on coaching from four reputable surveys from Australia and internationally. The authors present a conceptual map of coaching within organisational contexts. They contend that the major challenge for the coaching profession is the need to differentiate itself from other related activities and to benchmark itself as a profession, and conclude with several areas for further research that would provide a sound evidence base for this purpose.

Kristal Reynolds, Karen Becker and Julie Fleming in Chap. 15 reflect on the ways in which technology is impacting on organisations today and how workforce development professionals have been some of the leading proponents for embracing technologies and the benefits they offer. E-learning has emerged as at least a complementary offering to face-to-face training, and in some cases has replaced more traditional forms of workforce development. The authors review the current state of e-learning, its benefits and drawbacks, and the issue of social interaction in

e-learning; examine whether learner differences in their desire for interaction with others during the learning process impact on learning outcomes; and consider the concept of social presence and how that may help overcome the issues of lack of interaction within an e-learning environment. The authors claim that their chapter represents a small step in building clarity around the relationships of social presence and interaction, and the impact of preference for affiliation, in order to achieve better e-learning outcomes. Their view is that understanding links between these constructs can provide organisations with indicators for implementing effective approaches to e-learning, as well as ensuring that the e-learning offered is delivering maximum results for both learners and organisations.

In Chap. 16 Lydia Kavanagh, Lesley Jolly, Liza O'Moore and Greg Tibbits consider the longstanding use of simulators to develop workplace skills and ask how these existing technologies might better serve the needs of workplace development. Much existing technical discussion of simulators comes from a human factors perspective which focuses on micro-processes in performance. The authors here argue for a more socio-cultural and socio-technical point of view that simulators can develop workforce competency only when jobs are understood in their socio-cultural settings and the role of technology is understood as relative to and determined by that setting. The chapter presents ways in which industry can approach the identification of targets for simulator use and implementation strategies. These suggestions have the potential not only to save money but also contribute to a more professional and engaged workforce. By moving from the reproduction of the physical work environment to the inclusion of opportunities for demonstrating adaptation to unusual and changed circumstances, simulators and simulations have the power to reveal where the 'adaptive capacity' lies in a business or industry and can help to develop those attributes to make the most of future opportunities.

Part IV, 'Looking forward: Changing Perceptions and Possibilities', addresses some other overarching considerations for workforce development generally that do not align specifically with the themes of the first three parts and yet help us to look forward. In Chap. 17 Leigh Burrows focuses on spirituality in the workplace and argues that, whether acknowledged or not, there are emotional and spiritual undercurrents in organisations. We work hard to create physical safety in our workplaces. Can we also create mental, emotional and spiritual safety—safety for the whole person? The author explores, through vignettes of school leaders and teachers coping with relational dilemmas at work, what can happen when we pretend that emotions and spirit do not exist, and highlights the potential of mindfulness to contribute to personal, interpersonal and structural/organisational elements of workforce development. A spirituality of work draws our attention to the ways in which individuals experience work, its conditions, structure, organisation, and its relation to the individual worker. It suggests that commitment to work depends as much on the way work is experienced as it does on the individual work. Though this chapter focuses on the schooling context, there are many links with other workplaces since many of the challenges faced by participants relate to interpersonal difficulties with colleagues or structural/institutional barriers in organisations. The author concludes that the time is indeed ripe to examine the role that spirituality might play in the way people view and experience work.

Michele Simons discusses the critical role of evaluation in workforce development in Chap. 18. Organisations report heavy investment in training for their employees across the work ‘lifecycle’ for a range of purposes. While they often express concerns about the inefficiencies attached to this spending with regard to duplication of effort and the ‘training silos’ that can exist across organisations, they also articulate a desire to benchmark and learn more about how to collaborate and develop nationally coordinated efforts that might enable them to meet training needs in a more cost-effective and efficient manner. In this chapter, the author discusses these issues and examines the way in which the practices of evaluation, appropriately conceived and implemented at a national level, can offer a way to achieve these stated desires. She presents a bespoke evaluation model, developed from existing evaluation theory, which can assist organisations to make decisions in addressing common areas of skill development, along with some of the challenges and considerations that need to be taken into account to enhance its effectiveness and utility.

In Chap. 19, Jim Stewart and Sally Sambrook outline a range of critical perspectives on workforce development. They examine recent developments in what is referred to as ‘critical HRD’ (CHRD), and claim that HRD is broader in scope and encompasses ‘workforce development’. CHRD is explored as an alternative term denoting a shift in theorising and research on HRD which aims to question and challenge conventional understandings of the purpose and means of facilitating learning in work organisations. They believe that by emphasising different purposes CHRD provides an alternative perspective. One significant implication the authors draw from their stance is the question of if and when CHRD replaces HRD and so becomes the new ‘mainstream, established, traditional or conventional’. A speculation that arises from this implication is that CHRD will at some point cease to have any meaning. However, the likelihood of that outcome is constrained by another implication: that ‘doing’ CHRD is not an easy option. Do practitioners actually have the time, as well as the will and power, to ask critical questions and engage in critical thinking? This raises the further question of whether it is ethical to ‘teach’ CHRD when it might be problematic for practitioners to attempt to practise it in performance-oriented organisations. The authors’ speculation is that many will think not; but many will think the opposite. In either case, academics and professionals alike need to ensure they also adopt a critical eye upon their own work and so reach a position on this question. Their final speculation is that it is a crucial time for HRD as an academic subject and field of professional practice. The rise of CHRD will continue and that will increase tensions about purposes, values and justifications for workplace interventions. Workforce development therefore will take place in a context of uncertainty, ambiguity and dispute about its role and place in society as well as in organisations.

The book draws to a close with Chap. 20 by the editors, Tom Short and Roger Harris. In this final chapter we reflect on the individual chapter contributions and comment on the unfolding nature of workforce development. Framing the discussion as a kind of environmental audit of key issues through the book, we review a range of perspectives that are currently shaping the workplace development landscape, and attempt to make sense of what the future may have in store. We explore ten themes

that featured throughout the chapters as concluding thoughts. We acknowledge that developing people within organisations is not new, but the terminology used to describe it is ever-changing. Workforce development is the latest label in a long line of professional titles given to education and training activities carried out in the course of employment. As such, we are eager to discover whether the current vocabulary reflects a surge in innovation or is simply a case of old wine in new bottles.

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Part I
Sustainability, Growth and Diversity

Chapter 2

Attracting and Retaining Staff: The Role of Branding and Industry Image

Michelle Wallace, Ian Lings, Roslyn Cameron and Neroli Sheldon

Abstract In increasingly competitive labour markets, attracting and retaining talent has become a prime concern of organisations. Employers need to understand the range of factors that influence career decision making and the role of employer branding in attracting human capital that best fits and contributes to the strategic aims of an organisation. This chapter identifies the changing factors that attract people to certain employment and industries and discusses the importance of aligning employer branding with employee branding to create a strong, genuine and lasting employer brand. Whilst organisations have long used marketing and branding practices to engender loyalty in customers, they are increasingly expanding this activity to differentiate organisations and make them attractive from an employee perspective. This chapter discusses employer branding and industry image as two important components of attraction strategies and describes ways companies can maximise their brand awareness in the employment market to both current and future employees.

Introduction

In increasingly competitive labour markets, attracting and retaining talent has been one of the prime concerns of organisations (Collins 2001). While this competition may have abated recently in some countries due to the financial crisis, in others labour markets remain tight for some occupations. One example of this is the labour market for engineers in Australia. Employer branding has the potential to attract the human capital that best fits and contributes to the strategic aims and bottom line of

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organisations (Backhaus and Tikoo 2004; Martin et al. 2011). In this chapter we bring together, conceptually and practically, the work of two functions in organisations: the HR function—most specifically recruitment and learning and development—and the marketing/communications function, specifically employer branding. We also demonstrate how branding and signalling theory, usually applied to companies or employers, can be adopted at the level of an industry with a weak brand image and some difficulty in attracting human resources.

Employer Branding and Image

In much the same way that organisational brands communicate the benefits of using a product or service to potential consumers, employer brands communicate the benefits of employment to potential employees (Ambler and Barrow 1996). The process of branding is ‘involved in creating a unique name and image for a product (good or service) in the consumers’ mind, through advertising campaigns with a consistent theme’ (Business Dictionary 2013) and can be controlled by an industry or organisation. Branding influences ‘the beliefs held by individual consumers about a product’s, or service’s brand (perception of the name or logo)’ (Collins and Stevens 2002, p. 1122). These beliefs constitute the brand image of a business or industry that individuals evoke when its name is heard. Image can be influenced by branding activities, but is also subject to the influence of consumer experiences of an organisation, and is only partially in the control of the organisation.

To generalise these concepts to the attraction and recruitment context, the value of an organisation’s brand as an employer reflects potential employees’ beliefs that their employment needs will be met by the employer. Just as consumers depend on brands to differentiate between products, employer branding is used by potential employees to differentiate between employers and assist their decision making (Collins and Stevens 2002). Employers who have ‘high employer brand value’ are perceived by potential employees as more attractive than those with lower employer brand value (Berthon et al. 2005). A potential employee’s appraisal of an employer brand is prompted by factors including their awareness and perceptions of the employer brand which may be developed through word of mouth, personal experience and marketing strategies.

Branding theory and practices originally associated with consumer goods and services, in an effort to engender brand loyalty in customers, have been expanded to differentiate firms and to make them desirable from an employee perspective. Employer branding is a synthesis of marketing principles and recruitment practices and is based on the concept that, just as customers have perceptions of an organisation’s brand, so do other stakeholders including employees. In the same way that potential customers form preferences for one product brand over others, potential employees also evaluate the attributes of competing jobs and employers. As traditional advertising communicates characteristics of a product to consumers, employer branding suggests that marketing concepts can be applied to recruitment in which jobs are regarded as products and current or potential employees as customers or potential customers (Fyock 1993).

The term employer branding can thus be defined as ‘the package of functional, economic, and psychological benefits provided by employment, and identified with the employing company’ (Ambler and Barrow 1996, p. 186). Cooper discussed employer branding in terms of

what a company has to offer its employees. Employer branding can be used as a long-term strategy to manage the awareness and perceptions of employees, potential employees and related stakeholders with regards to a particular organisation . . . Employer branding strategies assist in shaping the perceptions of an organisation as an employer of choice . . . Employer branding is the communication of a company’s brand positioning within its recruiting and human resources marketplace. (2008, pp. 14–15)

Employer branding is not something that employers undertake in isolation from their other business activities or independently of their employees. Stakeholders such as employees, customers and investors are part of inadvertent and planned branding which encompasses the use of symbolism, behaviours and communication activities (Einwiller and Will 2002). Projecting the brand to these stakeholders must match the experience of working in, or being a customer of or an investor in the enterprise. The corporate brand constitutes a promise provided by the organisation to its stakeholders; it needs to permeate all of the companies’ behaviours and actions (Tilley 1999; Backhaus and Tikoo 2004). Ambler and Barrow stressed that the main role of the employer brand was ‘to provide a coherent framework for management to simplify and focus priorities, increase productivity and improve recruitment, retention and commitment’ (Barrow and Mosley 2006, p. xvi), bringing together the marketing and HR functions of an organisation.

The ‘fit’ between current employees and the brand image of a company has been particularly applied to the service industry where front-line customer service staff enact the value proposition of the firm and we will deal with this below in relation to employee branding. Notwithstanding the critique of front-line service staff identity work from post-structuralist perspectives (Du Gay 1996), we acknowledge but do not adopt this critical management studies perspective.

From a human resource management perspective employer branding has three elements. Firstly, the value proposition is developed around the organisation’s culture, management style, current employment image which enable the organisation to conceptualise the value offered by their organisation to employees. Second, this value proposition is marketed to potential employees and, third, the value proposition is also marketed to current employees so they enact the company’s values (Backhaus and Tikoo 2004). Internal employer branding, as the third stage is called, contributes to employee productivity and retention (Ambler and Barrow 1996). Backhaus and Tikoo (2004) provided the following model to explain the effects of employer branding (Fig. 2.1).

According to Van Dam, ‘employer branding is a logical process through which companies reach one main goal: to have a strong appeal on their current and future ideal employees’ (2006, p. 13). It is associated with a number of benefits. Firms with a strong employer brand exhibit a number of features: high recognition and positive image in the labour market, adherence to the promises of the psychological contract, unique economic and symbolic features that are valuable to potential employees, accurate differentiation as an employer, and stable policies and activities

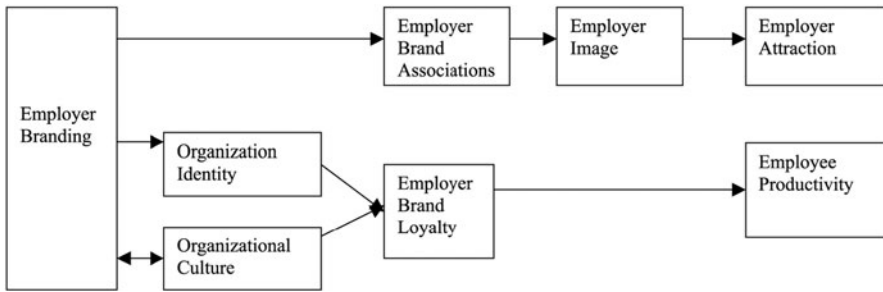


Fig. 2.1 Effects of employer branding. (Backhaus and Tikoo 2004, p. 505)

for positioning the company in the labour market (Kuchеров and Zavyalova 2012). Successful employer branding has been shown to increase the quantity and quality of job applicants (Collins and Han 2004) and contributes to the bottom line of a firm in a number of ways (Fulmer et al. 2003). Specifically, employer branding reduces the costs of recruitment through better communication with potential employees; it contributes to employee retention thus reducing the costs of turnover, and enhances employee engagement and corporate culture (Barrow and Mosley 2006; Backhaus and Tikoo 2004). Moroko and Uncles (2008) proposed that economic benefits of employer branding can be tracked through HR metrics, including externally focused measures (number of applicants per job and the percentage of job offers accepted) and internal measures (average length of tenure and staff turnover).

While an organisation controls its employer branding, attraction and recruitment practices, it has much less control over its image as market provider and as an employer. Information that potential employees gain about an employer forms the image they attribute to the brand of an organisation. Brand clarity refers to employer information that is unambiguous and instantly recognisable; brand consistency refers to the employer's image being reinforced across all information sources; and brand credibility refers to recruits' confidence that an organisation's employment promise can be delivered. When formulating an image of a potential employer, information from these different sources is viewed as more or less credible. Information based on firsthand experience is generally viewed as the most credible, while information from personal sources and impartial commentators is viewed as more credible than company-generated information.

Potential recruits' experiences of the firm's products or services or word-of-mouth from current or past employees may undermine the company's value proposition as an employer (Erdem and Swait 1998). Our research on the rail industry in Australia showed that its image as an employer was often influenced by individuals' commuter experiences; 'They can't even run their trains on time' (Wallace et al. 2010). Similarly, if a company's recruitment practices are at odds with its espoused position of concern for employees, its credibility as a potential employer may slip. Fernández-Barcala and González-Díaz (2006) highlight the branding gains for employers when the information received by potential recruits through the organisation's marketing

materials, the media, from personal experience and the broader community (including family and friends) is unambiguous and consistent. Conversely, when potential recruits receive contradictory brand experiences and messages from multiple sources, their perceptions that employer promises will not be fulfilled make the organisation less attractive as an employer.

Research indicates that potential employees have expressed preference for working in a particular industry either based on the products or services offered (e.g. the airline industry) or by the preferred tasks (e.g. marketing, finance) (Wilden et al. 2010). Extrapolating from this, we suggest that concepts relating to employer branding and image may also be applied to specific industries. Some industries such as aviation have a forward-looking, high-technology, 'glamour' image that attracts potential recruits. Others have a negative, less attractive or low profile image that makes it difficult to attract or retain staff.

Employee Branding

Drawing from theories of marketing and organisational studies, employee branding forms employees' attitudes and behaviours so that the brand identity of their organisation is projected through their work behaviour. The employee branding process is a complex process that has its foundation in an organisation's mission and values. It defines the desired brand image, which, if transmitted effectively and consistently to employees, enables them to understand and experience the brand image that an organisation wishes to convey. Employee branding also constitutes part of the psychological contract between employer and employee (Miles and Mangold 2005). The employee branding process, done well, provides a competitive advantage with tangible positive impacts on HRM. These include enhanced employee satisfaction and retention (Miles and Mangold 2005). In turn, this positively influences the reputation and profile of the organisation as an employer both internally and in the market, as shown in Miles and Mangold's (2005) conceptualisation of the employer branding process (Fig. 2.2).

Theoretical Perspectives

There are a number of theories that impact on attraction and image. First, the underlying theoretical perspective of employer branding appears to be informed by human capital theory and the resource-based view of the firm. It appears that attracting skilled people (human resources) is equally as important as acquiring the equipment or technological resources that are required to build competitive advantage (Backhaus and Tikoo 2004). Attracting and retaining the 'right sort' of people with the required skills mix is thus a combination of the branding proposition and a range of recruitment, selection and performance management strategies.

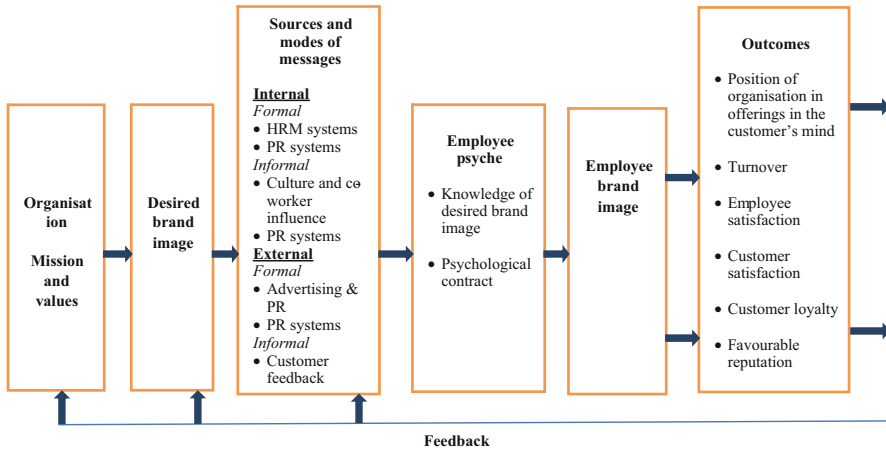


Fig. 2.2 A conceptualisation of the employer branding process. (Miles and Mangold 2005, p. 537)

Brand equity is another perspective of branding theory. From a human resource management perspective, positive regard for an employer encourages potential applicants to apply and current employees to stay and constitutes employer brand equity (Wilden et al. 2010). Signalling theory is also linked to branding. It explores how certain types of information influence applicants' perceptions of an organisation. Celani and Singh (2011) have discussed the central role of signalling theory in recruitment. Potential employees see the information put out by a company and its organisational characteristics as signals about the company. Positive signals attract potential recruits to positions in the organisation. The greater the attraction of a company through brand signals and reputation, the greater the quality and quantity of applicants and the higher the job acceptance rate.

Another concept is that the employer and employee brand constitute a psychological contract between the company and employees (Foster et al. 2010). Potential employees compare the perceived functional, economic and psychological benefits stated or implied in the brand promise with their own needs to ascertain whether they 'fit' with the organisation (Foster et al. 2010). If an employer fails to deliver their employer brand promise, evaluation of the organisation will be negatively affected when recent recruits assess their employment decision and may result in increased turnover for the organisation (Schein 1996; Backhaus and Tikoo 2004). Therefore, organisations must provide accurate brand messages about their work culture, values and identity in order to form a realistic preview of the psychological contract on offer (Foster et al. 2010). The increasing amount of precarious employment, in the forms of contracts and casual work, offers opportunities for employer branding. Brand promises of opportunities to enhance marketable skills through training and development and having a prestigious company on one's curriculum vitae might be exchanged in a psychological contract for employees' effort and flexibility (Baruch 2004).

Career Development

As we will see in Chap. 4, within this new psychological contract the onus of career development is on the individual rather than the organisation (Patton and McMahon 2006). McDonald and Hite (2005) identified three major shifts in this transition which impact on the attractiveness of an employer. These shifts include an employee focus on obtaining transferable skills rather than developing skills specific to any one organisation, replacing loyalty to one's organisation with a broader professional commitment to create a more portable network of skills and knowledge, and a greater interest in work–life balance rather than high salaries and status.

Another perspective that is useful when gauging the factors that attract young people to certain employment and industries relates to the concept of career anchors. Schein (1996) defined a person's career anchor as the self-image of one's ability, talent, basic values and career motives and needs. Schein's (1996) career anchor model revolves around eight categories reflecting basic values, motives and needs, namely: autonomy/independence, security/stability, technical/functional competence, managerial competence, entrepreneurial creativity, service/dedication to a cause, pure challenge and lifestyle.

Career anchors develop as a person gains life and professional work experience (Schein 1996) and serve as a stabilising force—an 'anchor' once an individual's self-image has been established and which then influences an individual's career decisions. Whilst Schein (1996) notes that for most individuals the needs underlying different anchors are likely to be met by several careers, the model is useful in allowing potential recruits some awareness of their values, interests, employment aspirations and areas of competence. The model also assists individuals in identifying which career or occupation might satisfy their personal characteristics and needs (Chang et al. 2007).

The Potential Employee Perspective

As suggested above, potential recruits evaluate the information that they receive in order to develop a multifaceted image of employers (Keller 1993). When seeking and making employment decisions potential employees evaluate features of an employer's image that can be categorised as functional or instrumental, experiential or symbolic (Keller 1993). Potential recruits form an opinion about the attractiveness of the employer through evaluating the value of these features to form an opinion about the attractiveness of the employer. This represents the value of the employer brand to the potential recruit.

Functional or instrumental brand benefits describe an employer's brand with respect to the objective, physical and tangible attributes that an employer may or may not offer employees. From a recruitment perspective, these represent basic motivations such as remuneration, compensation and benefits, training and development, promotion opportunities, and job security (Cable and Graham 2000; Lievens et al. 2005).

Experiential benefits emphasise the brand's effect on sensory satisfaction or cognitive stimulation and relate to what it feels like to work for an employer. These benefits may be embodied by the employment experience and include social activities, team accomplishments, job diversity, work environment and travel opportunities (Ambler and Barrow 1996; Lievens et al. 2005).

Symbolic benefits describe the brand in terms of subjective, abstract and intangible attributes tied to people's need to maintain or improve their self-image, or to express themselves through their beliefs, values, qualities and individuality (Ambler and Barrow 1996). As such, symbolic value represents the more intrinsic benefits of employment with an organisation that satisfies an individual's need for social approval, personal expression and self-esteem (Ambler and Barrow 1996).

Berthon et al. (2005) presented an alternative perspective with a scheme of five benefits, or dimensions of employer image, that are relevant to potential recruits: interest value, social value, economic value, development value and application value. Interest value is based on the perception that an organisation delivers a stimulating work environment, innovative employment policies and procedures, and utilises the ingenuity of its workers to create reputable products and services. Social value refers to the extent the organisation offers potential recruits an employment atmosphere that is friendly, enjoyable and promotes collegiality and teamwork. Economic value is based on the perception that the organisation provides its employees above-average remuneration, job security and career prospects. Development value refers to the extent to which an employer recognises the achievements of its employees, and provides career-enhancing experiences that act as a springboard to future employment. Finally, application value is based on the perception that the employer offers recruits the prospect of applying their skills and knowledge at work and of teaching others through training, coaching and mentoring opportunities.

In addition to these benefits, Lievens et al. (2005) presented three others: travel, culture and prestige. Travel benefits relate to the opportunities to travel for work. Culture benefits accrue from a work environment that includes an open and supportive management structure. Prestige benefits arise from wider perceptions that working for the employer is highly regarded.

Potential recruits' anticipation of these benefits influences how attracted they are to careers with an employer (see for example Berthon et al. 2005; Lievens and Highhouse 2003; Slaughter et al. 2004; Lievens et al. 2005). Not all attributes are equally important to all recruits. Recruits are more likely to view an attribute or benefit as either good or bad if they first consider it to be important. Consequently, it is necessary to establish the relative importance of functional, instrumental and experiential values for different types of recruit, since it is likely that potential recruits at different life/career stages will have different motivations and may value the various aspects of employment differently.

Much of the empirical work on employer branding has been conducted in western countries, specifically Europe and the US (Ong 2011). In one of a relatively few non-western studies, Arachchige and Robertson (2011) explored a sample of final-year business course students in Sri Lanka, and identified eight attributes that constitute the employer brand. These attributes were:

- corporate environment
- job structure
- social commitment
- social environment
- relationships
- personal growth
- organisational dynamism
- enjoyment.

Job Characteristic Preferences

Features or attributes relevant to a particular job are referred to as job characteristic preferences (Chang et al. 2007). These may include work tasks or conditions, including compensation, professional development, training, interpersonal relationships and wellbeing. Such preferences allow prospective employees to ascertain the attractiveness of an employer. In a survey of final-year university engineering students, the Department of Education, Employment and Workplace Relations (2008) indicated consensus among male and female final-year engineering students about the importance of job-related factors. In descending order these were: good working conditions, good work–life balance, opportunity for a variety of work, good pay, opportunities for promotions and career advancement, opportunities to apply skills and knowledge in a practical way, and permanency/job security. Each of these job-related factors constitutes an element of the employer brand.

Interestingly, and in line with the view that potential recruits at different life/career stages may value the various aspects of employment differently, significant differences between men and women were observed. These were most marked in items ranked of lesser overall importance. Women ranked the following items between 6 and 11 % points higher than men: opportunity to extend experience and skill through professional development programs, opportunity to work overseas, opportunity to contribute to society and opportunity to help people improve their lives. In contrast men ranked the following items between three and seven percentage points higher than women: opportunity to be involved in new and emerging technologies, availability of cash bonuses and fringe benefits and fixed-term contracts. These findings highlight the need for employer brand managers to be sensitive to the different needs of potential recruits and to be open to the possibility of segmenting the recruitment market and communicating tailored brand messages to these segments.

Employer of Choice

There are polarised opinions on the relationship between firms becoming an employer of choice and attraction of potential recruits. Chandler McLeod's (2007) research suggested that 52 % of job seekers reported that they were rarely attracted

by claims by an organisation to be an employer of choice and only 5 % of job seekers revealed that the employer of choice status was an important consideration. In contrast, 93 % of employers thought employer of choice status was important to recruits. When considering an employer, benefits considered most important by potential employees were flexible work arrangements and workplace development opportunities (Chandler McLeod 2007). However, more research is needed to identify whether these attractors can be generalised across multiple recruitment markets.

Organisations seeking to identify the specific attributes of employment that their employees value typically do so using employee surveys. Love and Singh (2011) identified a dual role for these surveys. They argued that employer surveys can also act as a strong medium for workplace branding and identified eight common themes for HR success from a sample of 'best employer' surveys related to HR practices:

- inspired leadership
- strategic plan that promotes 'best employer HR practices'
- employee communication
- performance management
- training and development
- benefits based on 'best practices'
- physical workspace
- corporate citizenship.

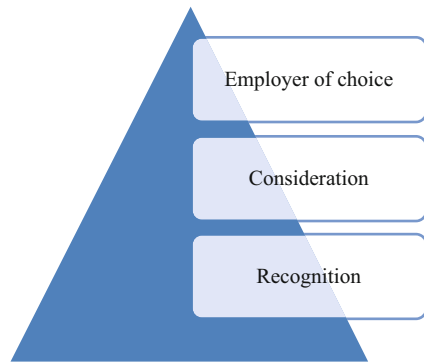
Love and Singh (2011) also made the salient point that the use of 'best employer' is not a new idea and has over time reached a point of saturation, with many organisations positioned as an employer of choice, essentially removing any competitive advantage derived from the label. They noted a move towards targeted or specialised employer branding and the increasingly global nature of labour markets forcing many organisations to have a consistent worldwide brand.

Franca and Pahor (2012) conducted research focused upon recruitment and how employer image is communicated through the employer brand. They proposed a new model for measuring the strength of employer brand referred to as the brand value pyramid. The brand value pyramid operates at three levels: recognition, consideration and employer of choice (Fig. 2.3).

The researchers conducted a large-scale study to identify how different factors influenced the strength of an employer's brand. Their findings confirmed the general findings of other employer branding studies : that employer brand has several dimensions to it and that different organisations/employers will have issues with different dimensions of their respective employer brand.

Recently, App et al. (2012) examined how the concept of sustainable human resource management (sustainable HRM) can assist organisations to establish an attractive employer brand. Ehnert defined sustainable HRM as 'the pattern of planned or emerging human resource strategies and practices intended to enable organisational goal achievement while simultaneously reproducing the HR base over a long-lasting calendar time' (2009, p. 74). App et al. (2012) made links between sustainable HRM and employer branding, developed ways to integrate sustainable HRM

Fig. 2.3 Brand value pyramid. (Franca and Pahor 2012, p. 94)



practices into the different stages of the employee value proposition and provided insights for attracting new, and retaining existing, employees who are at different life and career stages.

Recent Research on Employer Branding and Attraction

There have been a number of qualitative and quantitative studies on employer branding and its relationship to attracting and retaining staff. Kucherov and Zavyalova (2012) examined Russian companies and MNCs in Russia from industries including IT/telecommunications, professional services, oil and gas, and banking. Eighteen of the 123 companies were ranked as ‘best employers’ and consequently were deemed to have strong employer branding. The remaining 95 ‘control’ companies were not ranked as ‘best employers’ and were deemed to have weak employer branding. They found that organisations with strong employer branding invested more in training and development activities and had staff turnover rates 6 % lower than the control companies. Furthermore, companies with strong employer branding were found to engage more in collaborative decision-making with staff and in supportive management processes, thus promoting a positive image to the internal and external labour markets. Kucherov and Zavyalova (2012) concluded that culture and experiential benefits were thus the main attractors for current and potential employees in their study.

Wilden et al. (2010) identified that potential recruits seek information about recruiting organisations beyond that provided by the organisation. The information sought included popular perceptions from peers and word of mouth from existing employees or those connected with them. This highlights the danger that there may be inconsistency between the employer brand message and what is ‘out there’ in public perceptions and lived experiences. Wilden et al. (2010) also reported that applicants with more work experience were more cynical about employer branding signals but conversely they valued specific companies’ contribution to their career development more than less experienced applicants. Inexperienced applicants valued

the contribution that a strong corporate brand would make to their curriculum vitae. These findings highlight the need for employers to communicate appropriate brand messages to the recruitment market and that specific rather than general information might be more compelling (Fyock 1993; Huang et al. 2011; Wilden et al. 2010).

Specific information on such professional development programs is indicative of opportunities for continuous learning and career enhancement (Ito and Brotheridge 2005) and also signals the value that a firm places on its employees and its willingness to develop them (Joo and McLean 2006). Other attractors in employer branding have been identified as clear messages about salary, clear job descriptions, organisational climate and person–job fit, work–life balance, promotion opportunities, task attractiveness and location of the organisation. Kuchеров and Zavyalova (2012) report that a higher salary is needed to compensate for inadequate provision of other attractors. However, while an advertised higher salary yields a higher number of applicants it also results in a greater number of poor-fitting applicants, with cost implications for HR departments having to sift large numbers of applicants.

Employer branding is an integral part of an attraction strategy and there are a range of ways companies can place their brand in environments in which it might be recognised by prospective employees. These include advertising and publicity, sponsorship activities, word-of-mouth endorsements including from past and current employees, creative and engaging recruitment advertising and using websites and social networking sites such as YouTube, LinkedIn, Facebook and Twitter, videos and podcasts, and online chat, in order to stay in touch with past employees who might rejoin the organisation as well as to reach potential new employees (Carmichael 2009; Collins and Stevens 2002; Cooper 2008; Minton-Eversole 2009; Russell 2009).

Other more generic strategies for successful talent acquisition include: targeting mid-career workers, for example, retiring, technically trained military personnel where engineers or technicians are in short supply, cutting down on the ‘time to hire’ so as to not lose potentially strong candidates to other recruiters, and catering to the flexible work preferences of older workers. In addition, searching for ‘passive candidates’ through the creation and improvement of data repositories of active and inactive candidates and implementing detailed analysis of attraction measures, such as the ratio of employment applications to open positions, average number of days to fill vacancies, ratio of acceptances to offers, applicant drop-out rate, number of recruiting sources used, and percentage of new employees who remain longer than six months have been recommended (Cooper 2008; Minton-Eversole 2009; Sample 2007).

There also appears to be a disconnect between what job seekers value in an employer and what employers perceive as important. Research with 2,186 job seekers and 436 HR professionals across Australia indicated a difference between what job seekers wanted and what HR professionals thought made their organisation attractive to prospective employees (Chandler McLeod 2007). The ten most attractive employer attributes listed by job seekers were:

- an employer’s reputation for looking after and valuing employees
- challenging and/or engaging work

- training and development
- a fun, positive and vibrant working environment
- career development and progression
- an attractive salary or financial incentives
- recognition of performance
- understanding the importance of family or life outside work
- fair pay for a fair day's work
- definitive and strong company values.

The most apparent differences were that employers ranked recognisable company brand, challenging and engaging work, and strong company values much higher than did employees. Employees ranked a vibrant and positive work environment, attractive salary and other financial incentives, performance rewards and recognition, fair pay for a fair day's work and a manager they liked much higher than employers did.

Examples of Successful Employer/Employee Branding and Image

There are a number of examples of successful employee branding as a source of competitive advantage. Southwest Airlines have used employee branding to gain a positive organisational 'position' in the minds of customers and other stakeholders including potential employees. As a service-oriented organisation Southwest Airlines have reversed the traditional 'customer first' approach taken by most organisations by positioning their employees first and in turn expecting their employees to mirror the behaviours that they as employees receive from the company. This approach has allowed employees to genuinely 'live' the values and behaviours encapsulated in their mission statement, which can be found on their website: 'The mission of Southwest Airlines is dedication to the highest quality of Customer Service delivered with a sense of warmth, friendliness, individual pride and Company Spirit' (Southwest Airlines no date).

According to Miles and Mangold (2005), Southwest Airline's articulation and reinforcement of their mission and values is a key success factor in their use of the employee branding process to position themselves in customers' minds. The consistency and accuracy of their messages not only promote the desired brand image but reinforce the psychological contracts of their employees. Through implementing a range of HR practices the organisation has been able to reduce its employee turnover rate to under 5 %, when the average turnover rate for the American airline industry is between 20 and 30 % (Miles and Mangold 2005), and win a range of accolades including entry into *Fortune* magazine's '100 Best Companies to Work for in America'.

Miles and Mangold (2005) refer to both formal and informal methods used by Southwest Airlines to communicate its brand messages to current and potential employees. It communicates formal internal and external messages via the HR and PR systems including, for example, advertisements, media releases and compensation. The recruitment and selection process is used to screen out employees and ensure that those coming into the organisation are likely to enact their values and behaviours.

Similarly, training and development and the performance management systems both clarify and reinforce the Southwest Airlines culture. Informal internal and external methods such as relationships between employees, customer feedback and word-of-mouth communications are also recognised by Southwest Airlines as important transmitters of the desired brand image.

The psychological contract has already been established as an important factor in the employee branding process. To monitor the extent to which the psychological contract has been upheld Southwest Airline employees who have been with the organisation less than nine months are invited to discuss how well their employment expectations have been met. As Miles and Mangold (2005) explain, the ability of Southwest Airlines to uphold their employees' psychological contract has been key to their success in positioning themselves in the minds of customers, employees and potential employees.

A further example of employer branding is the process undertaken by McDonalds starting in the early 2000s. McDonalds faced a situation where employment at McDonalds had come to be associated with low-paying, low-status work with little or no chance of progression. So synonymous was McDonalds with poor employment conditions and low prospects that in 2001 the Oxford English Dictionary included the term 'McJobs', defined as 'an unstimulating, low-paid job with few prospects'. Using the principles of employer branding McDonalds revised the image associated with McJobs through a variety of initiatives including advertising campaigns emphasising the positive aspects of working at McDonalds. Essentially, McDonalds attempted to align their image as an employer with the employee value proposition that they wished to embed into their brand, thereby closing the gap between perceptions of potential recruits and the real employment experience of employees.

Recently, Gould (2010) reported survey data from a sample of Australian McDonalds outlets to gauge employee experiences and attitudes towards working at McDonalds. His findings indicated that McDonalds jobs offer human resource advantages, potential career opportunities and, for some, a sought-after form of employment, and suggested that McDonalds' attempts to reposition their employer brand has, at least in part, been successful. This is borne out by the award of the 'Best Place to Work in Hospitality' to McDonalds in 2007. Gould's research, however, also suggested that the employer brand is not equally attractive to all. He found that jobs at McDonalds offer benefits such as job security and the possibility of career advancement, but that these benefits are important only to some employees. In particular, older employees and those with higher education are less attracted to these benefits of working at McDonalds. Gould's findings highlight the need for organisations to understand the segments of the recruitment market that offer the most fruitful prospects for satisfied recruits, an area that he asserted has previously not been well explored. We suggest that, just as these employers have successfully branded or re-branded themselves and lived up to their brand promise in attracting and retaining staff, so too can industries brand themselves to attract and retain staff. We thus extrapolate that signalling theory as a brand equity and image approach can be applied to industry branding, especially for those industries with a low brand profile and low or negative image as an employment choice for potential recruits.

Branding Issues in Lower Profile Industries: The Example of Rail

In Australia, previous research with graduating engineers has identified that the rail industry, as an employer, has low brand awareness and a poor brand image compared to public engineering companies as well as an ageing workforce and looming retirements (Australasian Railway Association/DEEWR 2007a, b; Kerr and Waterhouse 2008). As a consequence, potential recruits have seen little value in 'rail' as an employer brand. This low brand awareness and poor brand image result in a high-risk evaluation of rail by potential recruits; rail is seen as less attractive than competitors with higher employer brand value. This is especially so among younger potential recruits.

Attracting a younger workforce requires companies to provide opportunities based on merit and achievement, and to offer attractive salaries and diverse job opportunities. Rail could adopt a more enlightened approach to recruiting. This could involve taking into account individuals' personal preferences and skills, the use of aptitude and psychological testing, enabling staff to participate in company policy making, offering lateral movement, making greater use of the internet, being involved in campus recruiting activities and job fairs, increasing public exposure to the developments in the rail industry, and offering flexible hours (Sample 2007).

Other western countries also have issues with attracting young workers to some industries. In the UK and US, industry sources acknowledge that despite the rail infrastructure investment in both countries, the image of the industry is often seen as unattractive by school leavers and graduates. Both countries recognise that a national approach that promotes railway engineering as an 'exciting, sustainable career of choice' within schools and universities is essential to meet infrastructure commitments.

The UK Engineering and Technology Board has advertised engineering as a lifestyle choice and advertised and gained editorial coverage in magazines such as *Marie Claire*, *Nintendo Official Magazine* and *Xbox World 360*. It has also developed the Scenta online portal which links to databases of engineering courses and case studies with a lively magazine-like quality and interactivity.

Skills shortages in the US paper and pulp industry have been addressed in a number of ways and these may be applicable to rail. Kargar and Qasemi (2008) advocate on-campus information, working with faculty members to integrate technical aspects of the industry into the curriculum, promotional campaigns, presence at on-campus careers fairs, supporting other extracurricular activities, offering internship opportunities, sponsoring faculty research, affiliation with professional associations, and sponsoring back-to-school events.

Conclusion

Organisations have long used marketing and branding practices to engender product and service brand loyalty in customers. Increasingly, organisations are expanding this activity to differentiate themselves and make themselves desirable from an employee

perspective. In this chapter we have attempted to highlight the need for organisations to strategically align the HR function, most specifically recruitment and learning and development, and the marketing/communications functions, specifically employer branding, in order to attract and retain talent in competitive labour markets.

At a macro level the role of branding and industry image are important in attracting the human capital that is required to contribute to the strategic aims and financial performance of the organisation. Not only does branding provide an organisation with a framework to simplify and focus priorities and increase productivity; it is also important for improving recruitment, retention and commitment of employees. At the micro level potential recruits rely on employer branding developed through marketing, personal experience, word of mouth and their perceptions of the brand to assist their decision making when evaluating or comparing potential employers.

We have raised employee branding as an important component of an organisation's overall branding strategy. Employees project their organisation's image and brand to customers and others including potential employees. Case studies in this chapter including Southwest Airlines demonstrate how employee and employer branding processes are helpful to position organisations in the minds of customers and other stakeholders. In particular, they highlight the need to ensure that a promised brand image matches the organisational reality and suggest this can only be achieved through a genuine alignment of the mission and values of the organisation with the desired brand image. The results for employers of not delivering on their employer brand promise are significant. A weak brand image and reputation as an employer can lead to poorer candidates, disengaged and resentful employees, higher turnover and ultimately reduced organisational performance.

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Chapter 3

International Developments in Skills Migration: A Case Study of the Opportunities, Threats and Dilemmas for Australia

Peter Kell, Roslyn Cameron, Deborah Joyce and Michelle Wallace

Abstract Skilled migration is not a particularly new phenomenon, however it has become much relied upon by many nations both sending and hosting in an ever increasing global economy. This chapter explores the international trends in relation to the global mobility of workers and professionals before taking a case study approach which examines the opportunities, threats and dilemmas facing Australia and its use of skilled migration. First we look at Australia's migration policies and recent changes in these which support a demand driven model before exploring Australia's skill shortages with particular reference to the Australian rail industry.

Introduction

The deployment of skilled migration by nations, industry sectors and organisations has often been viewed as a strategy to combat skills shortages and to ensure the workforce capacity is being sustained and developed. In this chapter we discuss some of the global trends associated with skilled migration and the particular dynamics of migration to Australia. We explore the changing nature of migration in the context of the global economy, the changing politics of migration, and the response of the Australian government to shifts in sentiments around migration and concerns about domestic reactions to migration. We also document in some detail the changes in policy that have emerged in Australia at the beginning of the twenty-first century and identify the dilemmas for governments, employers and proponents and supporters

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of greater global workforce mobility. We document the nature of the skills shortages in professional occupations such as engineering and associated vocational opportunities. We conclude with an analysis of the skills shortages in the rail industry and the relationship that these skills shortages have with government policy.

Global Mobility of Workers and Professionals

The International Organisation for Migration points out that these demographic changes influence migration in two ways. Rapid population growth in developing nations is a push factor for migration, and declining and ageing populations force developed nations to take migrants. The global demographic pattern evident here has ensured that global mobility has not been influenced by the cycles of business such as the global financial crisis. However global mobility of workers has been shaped by the changing global demographics, the widespread rise of educational levels, the emergence of Asian economies and the globalisation of the global economy (OECD 2012, p. 4).

In 2010 it was estimated that the total number of global migrants was 214 million and that 147 of these were born in a country in the South, or less-developed world. This represents 3 % of the world's population (OECD 2012, p. 4). The largest group of skilled migrants comes from Asia, making up 33 % or 8.5 million people, with a further 4 million from Latin America and 2.5 million from Africa.

Migrants are now more likely to be better educated: over 26 million migrants in the OECD nations have higher education degrees (OECD 2012, p. 7). One third of all migrants to the OECD are tertiary educated. Aligned with this are growing numbers of migrant women who are now moving not only for family reasons but also to take up higher-skilled occupations. Nearly 4 million women settled in the OECD between 2000/2001 and 2005/2006. 1.7 million of these came from less-developed nations, with over 700,000 of those from India. In the most recent movement of migrants the proportion of skilled migrants who are women is 33 %, and for men 31 %, leaving about 65 % in low-skilled occupations (OECD 2012, p. 9).

Host governments are now competing to attract better educated and skilled workers to fill occupations such as health care and education. In Europe, Canada, Australia and New Zealand 16 % of migrant workers are of Asian or Sub-Saharan background and are employed as professionals and 11 % are technicians. Another source of immigrants is international and foreign students who make up 6 % of the student population in OECD institutions (OECD 2012, p. 10).

According to Legrain (2007) skilled migrants benefit their destination in three ways. Firstly, they provide needed skills, different skills and quality skill sets. This is evident where countries are dependent on their health workers and nurses from the Philippines, security guards from Nepal, drivers from Sri Lanka, and engineers and IT professionals from India. Secondly, talented foreigners boost innovation. A 10 % rise in immigration in the US has boosted patents by 8 % and university patent grants by 1.3 % (Legrain 2007, p. 92). Thirdly there are benefits associated with the clustering of skilled workers that sees centres such as Silicon Valley become a home for a concentration of skills that enables specialisation (Legrain 2007).

Conversely developing nations are increasingly reliant on transfer payments and remittance from migrants, estimated by the World Bank at over \$372 billion in 2011 (OECD 2012, p. 4) Most of these workers have proficiency and competence in English, which is rapidly becoming the *lingua franca* of the high skilled global workforce. This makes workers from the British Isles or former British colonies, and more particularly the Indian subcontinent, highly prized employees. It also makes countries like Australia attractive destinations for migrants (Singh et al. 2002).

Global movement of workers has grown around a greater emphasis on temporary placement and temporary work and this is evident in the Middle East where the workforce is generally on short-term contracted work and, prior to the global financial crisis, there was a projection of demand for over 100,000 workers in Dubai alone for the next 20 years. Employers and national governments encounter considerable challenges in influencing the global movement of workers to ensure that the demand for skilled labour is met. This applies across the spectrum of the skills mix where there is demand for both low-skilled labourers and highly skilled engineers at the same time. The top ten most wanted workers are labourers at number one with engineers the second most wanted workers followed by production operators in third position, technicians fourth and IT staff in fifth place (Manpower 2008).

Global mobility is typified by several forms of work. These include commuting or periodic movement among several locations in several countries, and short-term assignments where there are short-term contracts in a country for a predetermined time, usually under 1 year. More permanent arrangements include international mobility with local employment status, where a company allows workers to work in another country, hiring them as a local employee. The final category is expatriation, where a management-level person is assigned for a long period of time to manage a local business or function (Manpower 2007).

The global market for professional workers is dynamic and competitive. A survey of 28,000 employers worldwide by Manpower Inc. revealed that 31 % of employers are concerned about talent leaving and working overseas. Many also employ strategies to recruit and retain staff including programs to enhance retention and boost training by providing better opportunities for advancement. Manpower argued that employers need to think that

The next step is to proactively anticipate the demand for talent as part of the future business of talent. This calls for letting go of old assumptions about talent's ready availability—and reconsidering employees' loyalty to the providers of their paychecks. Then it is essential to think in constancy of supply—to perceive that foreign workers are as essential to the development of countries they leave as the countries they move to. That lays the ground for reciprocity—an acknowledgement that employers have an obligation to help labor exporting countries to keep producing well qualified talent to up skill their own national workforces. And this leads to a shift in a mindset from brain drain to brain circulation—the idea that talent can be greatly enriched by movement among employers and locations. (Manpower 2009, p. 22)

Manpower suggested that government need to develop 'inward investment' packages that help attract professionals with more than salary packages and enjoyment of exotic lifestyles. This includes a 'branding' for a location in the same way that Shanghai,

Singapore, Hong Kong and Silicon Valley are attractive to expatriate workers, something that Legrain's notions of skills clustering captures. There also needs to be recognition of the needs of families including caring and family responsibilities. This means some concerns about schooling, housing, transport and health care assume a new importance in the decisions of potential expatriate workers. Most important is the need for efficiency, procedural fairness, predictability and reasonable time spans in the processing of visa and regulatory requirements.

A further tension arises concerning the mixture of skills related to migrant categories. The former head of the Australian Department of Immigration, Abdul Rizvi, suggested that, while the refinements to the Australian points test have helped migrants find jobs in the higher skills area, there still appear to be chronic needs in areas such as the care of the growing number of older people, or similar jobs that appear unattractive to the current Australian workforce. This skills area appears not to have been addressed by government policies yet a clear need exists as the population ages (Legrain 2007, p. 104).

The global movement of workers has been accompanied by some level of resistance and backlashes against migration. Anti-migrant sentiments have extended to governments such as the French government which has recently undertaken a tough stand on migration, introducing integration tests, language courses and tougher rules for family integration. In Europe racist ultra-nationalist groups, such as the British Nationalists, have been elected to office on platforms such as the deportation of migrants. In the US the post-September 11 atmosphere has led to national security grounds being used as a catalyst for toughening controls on work visas, entry of foreigners and crackdowns on illegal migrants. Employers and business groups, traditionally in support of migration, find they are under pressure as governments introduce restrictions and sanctions in a time when international labour is becoming harder to source. The International Organisation for Migration summarised the dilemmas as: 'Unfortunately the immigration debate is often preemptively hijacked by negative, populist slogans, which can inhibit the formulation of sound and balanced migration policies' (2005, p. 163).

The rise of reactionary and racist groups has increased pressure on governments to respond to the political domestic concerns of workers, and in particular blue-collar workers who have been the victims of structural adjustment as manufacturing and low-skilled jobs have shrunk in the developed world. The debates surrounding migration have also become influenced by negative sentiments towards Muslims in the wake of the 2001 attacks on New York, the wars in Afghanistan and Iraq and the continuing instability in the Middle East as a consequence of the Arab Spring in 2011. There has been a hardening of attitudes, which has meant that many of the policies associated with ultra-nationalists have been incorporated into what can be termed mainstream policy. The hysteria generated around anti-immigration including refugees and asylum seekers and concerns about growing levels of illegal immigration has also led to a conflation of categories. In the United Kingdom this has seen international students included in the general migration intake.

Australia: A Case Study in the Dilemmas of Skills Migration

Australia has a long history of migration and is considered a traditional migration nation. Several authors have documented the historical context of migration in Australia in their discussions of skilled migration (Hugo 2004a, b; Phillips 2005, 2006; Saunders 2008; Shah and Burke 2005; Tiecher et al. 2000). Hugo (2004b) undertook a comprehensive investigation into what he refers to as the ‘new paradigm of international migration’ and the implications this has for Australia’s future policy on migration. As Hugo and others have noted, migration has been, and will remain, a crucial aspect of Australia’s economic, social and cultural development and future. Australia’s migration policy has been developed as a national policy for over 60 years since the first federal immigration portfolio was created in 1945. The initial phases of migration were focused on migration from the United Kingdom and Europe and after the introduction of non-discriminatory policies in the early 1970s immigration has included non-white immigration from Asia, Africa and Latin American (Phillips 2005).

Hugo argued that the contemporary world of immigration in the twenty-first century is totally new and is a result of ‘a set of powerful international processes which are creating strong new political, economic, financial, cultural and information linkages between countries’ (2004a, p. 70). Hugo referred to this as the ‘age of migration’, characterised by ‘a massive increase in global population movement and an increase in the complexity of the types of movement—permanent and temporary, legal and undocumented, forced and voluntary, work and non-work related, etc.’ (Hugo 2004a, p. 1). This new era has been created by major and highly complex global drivers that have transformed international migration. These global drivers are summarised as follows:

- the internationalisation of labour markets, which has meant that many people now have knowledge of, and compete for, jobs in many countries;
- the increasing demographic gradient between nations which has meant many developed economies (which have experienced low fertility over a long period) where local workforces are not growing or declining have labour shortages; while in less developed nations (where workforces are growing rapidly) labour surpluses are large;
- widening gaps in economic wellbeing between less developed and more developed nations;
- globalisation of media, which increases peoples’ information about other places;
- universalisation of education in most countries;
- reduction of time and travel costs between countries;
- activities of transnational organisations especially companies with operations in many nations;
- labour market segmentation, which has seen people in higher-income countries eschewing low-status, low-income jobs, which open up niches for migrants;
- the proliferation of the international migration industry;

- the increased involvement of national governments in origin countries as they realise the benefits that can accrue through migration; and
- the massive growth of social networks that facilitate the migration of family and friends by providing information about migration and helping new migrants once they arrive at destinations (Hugo 2004a, pp. 9–10).

Australia has a strong record of and infrastructure developed for sourcing, processing, settling, employing, educating and supporting migrants and refugees. Arguably this infrastructure has been formerly attuned both to mass migration schemes for long-term settlement and family reunion programs and has been slow to respond to the shifts in orientation to short-term and temporary workers as well as long-term relocation and settlement by professionals in the new global workplace. Phillips summarised these shifts:

The original aim of the program was to build up the population for defence purposes. In the 1950s and 1960s, the program aimed to bring in workers to build up Australia's manufacturing industries. By the early 1990s, the aims of the program were more diffuse, encompassing social (family reunification), humanitarian (refugee and humanitarian migration) as well as economic (skilled migration) objectives. Over the last 10 years the emphasis of the program has been on skilled migration (both temporary and permanent), particularly to our regional areas. (2006, p. 1)

Cameron and Harrison (2010) noted that there is no argument that skilled migration is a crucial strategy (albeit not the only strategy) for Australia in combating the human capital imperatives of the twenty-first century, although there are concerns by some that there needs to be further efforts made to develop the home-grown skilled labour supply (especially through the vocational education and training sector) and concerns about the impact of skilled migration on local wages and unemployment rates (Shah and Burke 2005).

This shift to skills migration is evident in the Department of Immigration and Citizenship's 2012 migration figures. At 30 June 2012, the total migration program outcome was 184,998. In the Skill Stream (those wishing to come to Australia under a skilled migration visa) there were 125,755 places, which represented 68 % of the total migration program. 76.8 % of primary applicants (this refers to the primary visa applicant) in the Skill Independent category had an occupation on the Critical Skills List. The top priority Employer Sponsored category continued its strong performance in 2011–12 with an outcome of 46,554 against a planning level of 46,550. This represented 37 % of the total Skill Stream. The State Specific and Regional Migration outcome was 47,733 or 38 % of the Skill Stream (DIAC 2012, p. 3). The main source countries in 2011–12 were India, the People's Republic of China, the United Kingdom (UK), Philippines, South Africa, Sri Lanka and Malaysia (DIAC 2012, p. 5).

The key dilemma associated with the skills migration intake is the extent to which temporary 457 visas were used to import short-term labour for low-skilled occupations, displacing high-level skilled workers. Khoo et al. (2004) undertook a small exploratory survey of 135 employers who had sponsored skilled workers for temporary entry in 2003. The sample was diverse, mainly located in Sydney, and the largest number of respondents were from the IT and communication sectors followed by

the accommodation, café and restaurants sector. Over one quarter of the respondents had more than 300 employees. The top source countries for the skilled migrants were English speaking (UK, US, South Africa, Ireland, Canada and India). The majority of surveyed employers had never encountered problems related to inappropriate skills but some experienced problems related to a lack of knowledge of workplace culture and language problems. The main reason for sponsoring temporary skilled migrants was that the skills required could not be sourced domestically. The survey found that the 457 visa had given employers a certain amount of flexibility to be able to tap into the global pool of labour relatively easily.

In short, with the internationalisation of the Australian economy, there is an increasing demand for people with specialised skills and knowledge that is not available in Australia's relatively small labour market. If the skills and knowledge were available in Australia, most employers indicated that they would not go through the costly and lengthy process of recruiting workers from overseas. (Khoo et al. 2004, p. 24)

The Australian Human Resources Institute (AHRI) undertook a survey of its members (HR practitioners) about the use of temporary skilled migration, in particular the 457 visa. The AHRI survey data provides a much more recent and larger sample ($n = 1045$) of employers who have utilised temporary employer-sponsored migration and those who have not. The published report for the HR pulse survey is titled *Australian experiences with skilled migration: perception and reality* (AHRI 2009).

Key findings from the AHRI report (2009, p. 5) demonstrate the extent of skilled migration activity across industries:

- Nearly seven out of ten respondents (69.42 %) reported their organisation experienced skill shortages.
- More than 85 % of respondents believe a skilled migration scheme is necessary.
- More than nine out of ten respondents (95.03 %) whose organisations employed skilled migrants reported trying to fill the vacancies within Australia first.
- More than nine out of ten respondents (96.31 %) whose organisations employed 457 visa workers reported that their organisation benefited from the scheme.

Nonetheless, respondents noted problems with skilled migrants:

- Nearly a third of respondents (32 %) whose organisations employed 457 visa holders reported experiencing a problem.
- Of the problems relating to skilled migrants themselves, approximately a quarter of employers (24.43 %) and half of those working alongside 457 workers (53.16 %) saw English proficiency as the main one.
- By contrast, nearly nine out of ten respondents (85.91 %) whose organisations have not employed skilled migrants reported their main area of concern was English proficiency.

Systemic issues were also recorded:

- Many respondents reported problems in navigating the immigration process, with approximately half (50.02 %) of those employing 457 workers wanting to change the medical obligations of employers and nearly a third (30.9 %) the visa sponsorship process as a whole.

- Nearly half the respondents (45.1 %) whose organisations have not employed skilled migrants reported that it is easier to source Australian citizens than to go through the immigration process.

Skills Migration in Australia: Dilemmas of Dynamic Migration Policy Formations

As mentioned earlier in this chapter, Australia is considered to have one of the most effectively managed skills migration programs in the world (Legrain 2007). Its methods of assessment have been replicated by other nations and in response to the increased competition for skilled migrants the Australian government has adopted a dynamic and flexible approach to policy developments. Some of these changes are a result of this competition from traditional destinations such as the UK, US, Canada and Europe but it has now included new entrants such as Japan, South Korea and Italy (Shah and Burke 2005). While Shah and Burke (2005) considered Australia's prime status unthreatened, this does not mean the response of government is static. On the contrary the policy settings of the Australian government have changed around domestic political considerations relating to the perceived need to train workers locally and a backlash against aspects of migration. This has led to policy settings that emphasise 'toughening up' the migration entry requirements and a crackdown on illegal and improper practices.

In Australia attempts to recruit professionals from overseas sources have been hindered, to some extent, by a tightening of migration requirements by the Australian government. A conflating of all migration categories has also been evident and this has led to a tightening of immigration requirements, an escalation of expenses for potential migrants and a reduction in state assistance for them. This tightening of requirements arrives at a time when there are still widespread skills shortages in the full spectrum of occupations in Australia.

This issue is not exclusive to Australia and it reflects an increasing tightening of entry requirements by governments across the globe. Immigration has become a major policy issue in the United States, Australia and Canada, all of which are considered to be immigrant communities. Likewise in Europe the Shengan agreement provides for the free movement of EU citizens and other approved visitors within the European Union. Paradoxically these restrictions emerge at a time when global mobility is linked to free trade agreements. However the tightening of entry requirements has been initially triggered by concerns about illegal immigration and asylum seekers.

Worldwide, there has been growing concern about the numbers of refugees and asylum seekers and the growing number of illegal migrants. This has been apparent in Europe where there is steady trafficking in people from Africa, the Middle East and Eastern Europe. In the United States illegal arrivals from South and Central America have triggered a political crisis in the bordering states and the emergence of vigilante patrols on the US–Mexican border. This resistance to migration and mobility is in

contrast to the reliance of local industry on cheap illegal labour in the agriculture, hospitality and retail sectors in the south of the US.

In Australia the arrival of a second wave of boat people from 1999 onwards as a consequence of wars in Sri Lanka, Afghanistan and Iraq has triggered a reaction against asylum seekers. There has been questioning of the legitimacy of the *bona fides* of asylum seekers and refugees and a general perception that they are 'queue jumping' other more deserving asylum seekers in third countries. In the post-September 11 era the arrival of growing numbers of Muslim migrants has also been the subject of continued debate around the capacity and willingness of these newly arrived migrants to accept so-called 'Australian values'. Many of these debates have similarities with those used to describe earlier waves of migrants and generally question their willingness to learn English, mix with Australians and adopt Australian cultural norms. Like those overseas, Australian politicians have responded with a test for Australian citizenship on general knowledge of Australia and Australian values and an expectation that all migrants have proficiency in English.

In a period of tightening employment and economic restructuring typified by job losses, particularly in blue-collar occupations, attitudes to immigration in Australia have hardened. There has been an impression that the migration system lacks integrity and credibility and that the intake is uncontrolled and exploited. This concern has also been exploited by racist and ultra-nationalist political movements across the world and this has forced many mainstream political parties to toughen their policy responses to migration to align themselves with those who see themselves as threatened by immigrants. These groups have triggered anxieties in the community about non-English-speaking, non-white and non-Christian migration (Kell and Vogl 2012).

This insecurity is partly an explanation for the growing xenophobia that has focused on debates about immigration but the consequences of these debates are problematic for countries seeking skills migration. The image of Australia as a nation that welcomes migrants has been severely damaged by the 2005 Cronulla Beach riots and the bashings of Indian and Chinese students in metropolitan Melbourne and Sydney during 2008–2009. These events covered by the media have developed an impression that Australia is not a benign and welcoming environment with a strong commitment to multiculturalism (Kell and Vogl 2012).

In Australia bipartisan approaches to immigration across the major political parties were severed during the Howard government from 1996 to 2007. Although the levels of skilled migration were high at the end of the Howard government, it was characterised by controversies over refugees such as the Tampa incident in 2001 and the Pacific solution. The Rudd government and more recently the Gillard government have tended to react to the perception that Labor is soft on issues such as migration and have sought to rebalance the immigration intake. The government has reacted to concerns about abuses of 457 visas, student visas, skills migration and 'overstayers' on tourist visas. All these controversies have tended to convey mixed or negative messages to potential migrants about opportunities in Australia and this has not been aided by the dynamic nature of Australian immigration policy.

Recent Australian Developments in Skills Migration: Targeting, Fast Tracking and Sponsorship

A wide range of reforms have been introduced in the period 2008–2013. These reforms emerged from consultation with business and industry and the outcome of this was a more targeted approach to skills migration, with fast-tracked options for those with sponsored employment or in areas of critical skills shortages (Evans 2010a). The federal government has also sought to crack down ‘on people seeking permanent residence through low value education courses’ (Evans 2010c). There has been an emphasis on high-skilled migrants and a retreat from low-skilled occupations (Evans 2010a, c). The government’s responses were motivated by three key developments: concerns about the integrity of the migration program, the global financial crisis and the continuation of shortages of labour in what was referred to as a two-speed economy.

Since the 1980s the government has developed policies designed to target migrants with experience in areas where there is a skills shortfall through its general skilled migration program. There are a variety of options for potential migrants applying for migration under the general skilled migration program. This depends on whether the applicant is applying for an onshore visa (applying from within Australia) or an offshore visa (applying from outside Australia). International students currently studying in Australian institutions and skilled migrants on temporary work visas are now eligible to apply onshore for permanent residency under the skilled migration program (Shah and Burke 2005). Following changes in 2011 and again in 2012 international students are permitted to work for 2 years after completing their studies. There are also specific requirements to encourage successful business people to settle permanently in Australia and develop new or existing businesses. Employer-sponsored visas include the temporary visa (Temporary Business (Long Stay) Visa 457) and two permanent visas (Employer Nomination Scheme (subclass 121/856) and Regional Sponsored Migration Scheme (subclass 119/857)). There is a range of visa options under the General Skilled Migration program for skilled workers who want to live in Australia and who do not have an employer sponsoring them. These include options for skilled people applying as an independent migrant as well as those sponsored by a relative, or nominated by a state or territory government.

Skilled occupations that are acceptable for permanent and temporary skilled migration to Australia fall under two separate categories: General Skilled Migration and the Employer Nomination Scheme (ENS). Prior to 2010 potential applicants wishing to apply under General Skilled Migration had to have an occupation nominated on the Skilled Occupation List (SOL) at the time of application. Those wishing to apply under the ENS had to be nominated by an Australian employer to fill a position in an occupation that appeared in the Employer Nomination Scheme Occupation List. Occupations are listed alphabetically under the first four major occupational groups in the Australian Standard Classification of Occupations:

1. Managers and administrators.
2. Professionals.

3. Associate professionals.
4. Tradespersons and related workers (DIAC 2009).

The key policy impacts in the past few years have been better targeting of the skills migrant program around employer sponsorship and also state and territory government sponsorship. There has also been a shift to demand-driven approaches rather than supplier-driven approaches and there have been attempts to align with regional and industry needs.

From July 2010 the federal government abolished both the Migration Occupations in Demand List (MODL) and the Critical Skills List and replaced them with the Skilled Occupations List (SOL). This list will apply to all General Skilled Migrant applications. The list uses Australian and New Zealand Standard Classification of Occupations (ANZSCO) and reflects the high-value skills Australia needs. It listed 181 occupations, which was a reduction from the 400 in the now obsolete MODL.

The new SOL has been based on advice from Skills Australia and it will deliver a General Skilled Migration (GSM) Program more focused on high-value skills across the professions and trades. In July 2012 a new SOL was introduced but it was generally consistent with the earlier lists, particularly in the areas of the professions and engineering. The SOL now contains a list of 192 occupations across the Australia and New Zealand Standard Classification of Occupations (ANZSCO). Many of these occupations are in the engineering and technical fields and health and medicine. The Sub-Major Group 23 Design, Engineering, Science and Transport represents 18.7 % of the SOL and the Sub-Major Group 25 Health Professionals represents a third of the SOL (33.3 %).

Other changes from 2010 to 2012 include better links with states and territories, for example the development of state plans that enable prioritisation of migrants around regional state needs. Some states and territories such as the Northern Territory and the Australian Capital Territory have developed a skills plan. Migrants recruited through state plans have been allocated a priority in processing of applications by the Department of Immigration and Citizenship. This captures what has been termed the two-speed nature of the Australian economy to enable Western Australian firms to recruit mining engineers and Victorians to recruit architects (Evans 2010b).

There is a general concern that these issues have had the effect of conflating several key issues in migration and have tended to confuse potential applicants, narrowed options for skills migration and developed a perception that Australia is an expensive and unsupportive destination. The Australian government has moved to uncouple the links between study and migration, with restrictions being imposed on student visas and permanent residence, and then reversed this with the recommendations of the Knight Review. International students can now stay in Australia for 2 years under the temporary graduate visa if they are qualified and working in an occupation on the SOL. All these responses have tended to make the work of employers and industry seeking to source overseas labour more difficult in the face of competition for skilled workers from other countries such as the US, UK, Canada and New Zealand.

The changing dynamics of global mobility is a feature of contemporary life that the rail industry and their agents in labour recruiting internationally need to consider

strongly, particularly the politics of immigration and the impact that this has had on skills migration and overseas recruitment. Skills shortages arise from a variety of factors and include changing demographics where there is an ageing population, a failure to train and prepare workers for future job opportunities, and shifts in labour supply as a result of changing expectations and remuneration which distorts labour supply. Many developed countries have experienced a combination all three of these factors and have relied on migration or temporary workers to fill skills shortages.

Skills Shortages in Australia

Australia has experienced wide-ranging skills shortages and labour shortages regardless of the condition and performance of the economy. The shortages span a wide range of skill levels and occupations. A recent report by Australian Human Resource Institute (AHRI) identified that seven out of 10 surveyed Australian employers were still experiencing a skills shortage and over 85 % saw skilled migration as necessary to secure skilled workers. Over 85 % of employers in the survey said they were using skilled migration to source workers. However 95 % of employers had decided to turn to overseas recruitment after having no success in recruiting in the local market.

Much of the discussion on skills shortages has attributed it to deficiencies in training and preparation of workers and has ignored the complexities of the operations of the labour market, industrial relations and industry development, which influence the availability of workers.

There has been considerable research undertaken to identify skills shortages and what effect they will have on Australia in the future. Richardson defined a shortage of skills as ‘a source of aggravation to firms and, when acute, it is likely to hamper the quality and quantity of their output’ (2007, p. 8). Clearly, skills shortages can have many causes. Common causes according to Richardson include under-investment in skills development, rapid structural change combined with low levels of overall unemployment, a cyclical surge in employment in a part of the economy and particular spots of weakness in the training system (2007, p. 8) Richardson (2007, p. 9) suggested the following scheme for classifying skills shortages:

- Level 1 shortage: There are few people who have the essential technical skills who are not already using them and there is a long training time to develop the skills.
- Level 2 shortage: There are few people who have the essential technical skills who are not already using them, but there is a short training time to develop the skills.
- Skills mismatch: There are sufficient people who have the essential technical skills who are not already using them, but they are not willing to apply for the vacancies under current conditions.
- Quality gap: There are sufficient people with the essential technical skills who are not already using them and who are willing to apply for the vacancies, but they lack some qualities that employers consider important.

Put simply, a skills shortage means that ‘the supply of workers is not sufficient to meet the demand at current rates of pay’ (Richardson 2007, p. 8). However, on closer inspection, ‘shortage’ is not an easy concept to grasp. The term ‘skills shortage’ appears to be clear, but in reality it is a concept with many meanings. Richardson gave an example: ‘for a shortage to occur, it is necessary for the demand for a particular type of worker to exceed the supply of such workers’ however, the notions of supply and of demand are themselves quite inexact’ (Richardson 2007, p. 7). In their study of the idea of skills shortages, Shah and Burke proposed a typology that reserves the term ‘shortage’ for situations where ‘The demand for workers for a particular occupation is greater than the supply of workers who are qualified, available and willing to work under existing market conditions’ (2005, p. v).

Another distinction between different types of ‘shortage’ needs to be defined. This is between workers who do not possess an essential technical skill (for example, the capacity to drive a train, to operate signalling equipment or design infrastructure) and workers who are considered not to have the motivation or personal characteristics that an employer desires. Green et al. (1998) have reported that employers at times confuse these very capacities when they talk of shortages. Richardson explained:

Employers look for a variety of qualities apart from technical capacity to carry out varied tasks. When there are ample workers, employers expect a greater level of skill and qualities that a worker should possess. When workers are scarce employers lower their expectations and accept workers with lesser qualities including: specific experience, presentation and willingness to work hours that are more flexible. Employers perceive this as a shortage of skilled workers. (2007, p. 7)

Richardson and Teese (2008) suggested there needs to be an approximate match between the skills of the population and the needs of employers/industry in terms of quantity, type and levels of skills. Skills shortages affect productivity and skills surpluses present other problems. Skills surpluses tend to go unnoticed by employers but these are ‘economically inefficient and personally harmful’ (Richardson and Teese 2008, p. 11). The authors provided an example:

Where individuals and the taxpayer (and possibly employers) have expended time and money in the development of a skill, such as auto mechanic, the investment is wasted if people so trained cannot get jobs that use that skill. While there will never be an exact match between the skills that people have and the skills that employers want, a well-skilled future would avoid the emergence of either a large unmet demand for skills, or a large excess supply of skills. (Richardson and Teese 2008, p. 11)

In terms of addressing skills shortages, questions arise for industry around the balance between migration and localised recruitment through training and education. The question of how we can develop a more systematic form of recruitment and retention that provides a level of predictability in sustaining a quality workforce has assumed a new importance in Australian industry. Few sectors are escaping skills shortages in the Australian economy.

Skills Shortages in the Rail Industry

Skills shortages in mission-critical skill sets are greatly affecting the Australian rail industry's ability to perform in the current economic recovery period marked by significant infrastructure expansion. Certain engineering, technical and trade skills shortages remain critical for rail and the Australian economy in general. The rail industry faces a complex environment where not only is there a dwindling supply of skilled labour in these key areas, but the rail industry is also in competition domestically with other industries (mining, electricity, water, gas and construction) for these groups of highly sought after skill sets. The increasing global competition for highly skilled labour adds another dimension of complexity to this situation.

In 2007 ARA published the *Changing face of rail report* (ARA 2007), which was funded by the Transport and Logistics Centre and prepared by PricewaterhouseCoopers for ARA. *A rail revolution* (ARA 2008) was funded by the Department of Education, Employment and Workplace Relations for ARA in the following year. Both these reports identified specific skills shortages within the rail industry. The *Changing face of rail report* (ARA 2007) analysed employment trends in the Australasian rail industry and concluded that industry expansion was not supported by a strategy to expand workforce capacity. The report also found that outsourcing tends to attract staff away from core operators in times of constrained supply of skilled labour, and that age was an important factor in the workforce profile. The following key points were made:

- The problem of an ageing workforce is felt more acutely in rail since the average age of employees in the industry is relatively higher than the general workforce population (the age profile of the industry resembles an inverse bell curve).
- Core rail occupations are heavily impacted by ageing and are the subject of offshore 'poaching' (ARA 2007, p. 2).

A rail revolution (ARA 2008) reported on extensive labour market analysis and forecast trends in labour force needs that have never been experienced before in the Australian rail industry. The greatest need for specific skills sets is across the engineer job family, in addition to the trades and trades equivalent job family. The report estimated that rail will need to access the following numbers of key skills sets for the next 5 years to meet demand and cover loss through age retirement:

- 250–340 engineers every year for the next 5 years (41 % loss of current workforce over next 5 years)
- 500–700 tradespeople every year for the next 5 years (40 % loss over next 5 years due to retirements and separations)
- 420–700 operations staff every year for the next 5 years (ARA 2008, p. 9).

The Rail Skills and Career Council (RSCC) was established in July 2004 within the ARA to address concerns within the industry related to workforce development and skills shortages. The RSCC co-ordinates industry-based initiatives to mitigate the effects of these skills shortages and to undertake future workforce development. To this end the RSCC has established working partnerships with external stakeholders,

including the CRC for Rail Innovation and the Transport and Logistics Industry Skills Council to achieve a national and unified approach to confront these workforce development issues. The CRC for Rail Innovation has funded several projects to deal with workforce development issues. The Skilled Migration Project is one of these and is closely aligned to two other human resource projects: Attraction and Industry Image and Staff Retention and Engagement. In addition there are several related projects under the Workforce Development Theme, including:

- evaluation of simulators in train driver training;
- designing a capability framework for leadership and management development;
- evaluation of methodology for training courses;
- national competence assurance for train drivers;
- scoping a rail safety investigator competency framework and program;
- scoping the potential of e-learning in rail; and
- skills recognition.

Independent research undertaken by Mahendran and Dockery (2008) drew upon secondary data from the Australian Bureau of Statistics and primary data acquired from questionnaires and interviews with twenty rail operators across Australia. The research was focused upon building a contemporary profile of the national rail workforce and the skills shortages within it. 'The results of the study indicate that to effectively address the workforce issues they face with regard to labour shortages, rail operators will need to enhance the recruitment of personnel and the embodiment of the requisite skills in those workers' (Mahendran and Dockery 2008, p. 15). The researchers listed potential strategies to combat this, which included attracting women re-entering the workforce; enhancing net retention rates through increasing rates of entry of new recruits or reducing the rate at which existing workers leave the industry; sponsoring more training opportunities; boosting internal training; developing more collaborative training programs in cooperation with affiliated training organisations and educational bodies; and encouraging older workers to delay retirement (Mahendran and Dockery 2008, p. 15–16). Most of these suggested strategies are short- to medium-term in scope and there is no mention of skilled migration as an option or possible strategy.

Another CRC Rail Research project focused on scoping the potential of skill recognition systems for rail noted the following in terms of skill recognition for migrants:

The literature identifies 'initial downward occupational mobility among immigrants' which leads to a wastage of skills (Shah and Burke 2005, p. 1). Significant differences between Australia's occupational conventions and health and safety requirements and those of the home countries of migrants can lead to the loss of skills benefits of migrants. Lack of everyday and/or specialised technical English skills can also be a significant impediment (Saunders, 2008, p.11). Migrant skills wastage can be reduced by providing new migrants with 'appropriate programs for recognising previously acquired qualifications and occupational licenses' and 'updating occupation-specific skills' (Shah and Burke 2005, p. 1). (Maher et al. 2010, p. 27)

The *Final report into the Inquiry into Skill Shortages in the Rail Industry* (Education and Training Committee, Parliament of Victoria 2010) synthesised the inquiry submissions received and noted skills shortages in the rail industry in the following

Table 3.1 Rail Industry Skills Shortages. (Source: Education and Training Committee, Parliament of Victoria 2010, pp. 35–39)

Skills shortage type	Rail industry
Level 1 shortage	Engineers (railway, signalling and civil) Project managers/infrastructure managers Technicians (signalling) Trade workers/diesel mechanics/electrical Drivers
Level 2 shortage	Signalling technicians Safeworking Track workers

areas: project and infrastructure managers; engineers (railway signalling, track and civil); train and network controllers; technical workers/signalling technicians; track workers/diesel mechanics; and maintenance trades/electrical. Using the typology of skills shortages developed by Richardson (2007) (described above) the committee classified the rail industry skill shortages. Please refer to Appendix 1 for occupations on the SOL relevant to the rail industry. (Table 3.1).

The Australian rail industry is in a period of expansion with increased patronage, revenues and infrastructure investment. This resurgence is reflected in its current investment outlook across Australia. Against this backdrop is industry recognition that the Australian rail industry is not attracting sufficient numbers of engineers and skilled technicians to fulfill current and future infrastructure needs. Contemporary research suggests that this is because, in some cases, rail careers are not seen as attractive and, in other cases, because there is a lack of awareness of rail careers among traditional and non-traditional sources of recruitment (Sheldon et al. 2010).

Conclusion

The globalisation of the international workforce has increased both the mobility of workers at all levels and also the competition. The nature of this competition has profoundly changed and been influenced by shifts in government policies favouring short-term temporary work rather than long-term settlement programs. In addition there has been a global backlash against migration and this has placed domestic pressure on governments to reduce their reliance on foreign workers. All these dilemmas have arisen at a time when underinvestment in the training infrastructure in developed nations and reduced birthrates have contributed to a shortage in professions such as engineering. In Australia there has been considerable policy activity by state and federal governments to respond to this with new schemes to align migration more closely to local industry needs and skills shortages. These shortages have impacted on the rail industry, which has in the first decades of the twenty-first century experienced rapid growth and investment. This industry, like other industries reliant on high-level professionals, has experienced difficulties in sustaining the pipeline of experienced

and qualified professionals in a policy environment subject to considerable shifts and changes and global competition. It remains a challenge for all developed nations to source a supply of qualified workers at a time when competition and resistance to global mobility have increased.

Appendix 1. The occupations that are relevant to the rail industry in the Skilled Occupation List, updated 1 July 2012

ANZSCO	Corresponding occupation
133111	Construction project manager
133112	Project builder
133211	Engineering manager
233112	Materials engineer
233211	Civil engineer
233213	Quantity surveyor
233214	Structural engineer
233215	Transport engineer
233311	Electrical engineer
233411	Electronics engineer
233511	Industrial engineer
233512	Mechanical engineer
233914	Engineering technologist
233915	Environmental engineer
261111	ICT business analyst
261112	Systems analyst
261311	Analyst programmer
261312	Developer programmer
261313	Software engineer
263311	Telecommunications engineer
263312	Telecommunications network engineer
312211	Civil engineer draftsman
312212	Civil engineer technician
312311	Electrical engineer draftsman
312312	Electrical engineer technician
313211	Radio communications technician
313212	Telecommunications field engineer
313213	Telecommunications network planner
313214	Telecommunications technical officer or technologist
321111	Automotive electrician
321211	Motor mechanic (general)
321212	Diesel motor mechanic
321214	Small engine mechanic
322211	Sheet metal trades worker
322311	Metal fabricator
322312	Pressure welder
322313	Welder (first class)
341111	Electrician (general)
341112	Electrician (special class)

ANZSCO	Corresponding occupation
342211	Electrical linesworker
342212	Technical cable jointer
342313	Electronic equipment trades worker
342314	Electronic instrument trades worker (general)
342315	Electronic instrument trades worker (special class)

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Chapter 4

Career Paths: Challenges and Opportunities

Neroli Sheldon and Michelle Wallace

Abstract Fundamental changes in the composition and functions of organisations have led to blurring of organisational boundaries and changing employment relationships. The notion of a career path has become increasingly ambiguous, with individuals taking increased responsibility for managing their own careers. Furthermore, the growing individualisation of employment policies and non-traditional employment has implications for the management of people at work, particularly the planning and management of employee careers. Career paths benefit both employee and employer. They can strengthen the psychological contract between employer and employee, ensure the employee is not restricted to a particular job, career path or organisation, as well as ensuring employees have the skills needed both now and in the future to contribute to organisational success. This chapter draws together relevant theories on how organisations treat the notion of career paths and how they implement strategies that will engender employee loyalty, create genuine career development and meet organisational objectives.

Introduction

Since the mid-1980s there have been fundamental changes in the way work, employment relations and career paths are organised (Chudzikowski 2011). The effects of globalisation, organisational restructures, outsourcing, increased and intense competition for market share, and rapidly improving information technologies have focused attention on the importance of human capital in maintaining competitive advantage (Zoogah 2010). Such factors combined with the trend towards the individualisation of employment policies and the decline in the influence of collective organisations such as trade unions have engendered a new psychological contract between employee

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and employer, which has shifted the responsibility for professional development, learning and career development from the organisation to the employee.

This new paradigm encompasses permanent or ‘core’ employees with ongoing and secure employment contracts on the one hand and an array of non-traditional, ‘peripheral’ employees including part-time and casual employees and those with international careers, who move between jobs, organisations and countries (Suutari et al. 2012). Research has paid particular attention to this latter cohort because organisations often find it difficult to keep highly skilled, in-demand contract staff, including expatriates, after their assignment is completed.

In this chapter we draw together relevant theories on contemporary career development, how organisations treat the notion of career paths and how they implement strategies to engender employee loyalty, create genuine career development and meet organisational objectives. We will also raise several important questions. Firstly, whether the notion of career paths remains a viable concept in all but large organisations and for certain types of employment, given the growth in the peripheral workforce and insecure employment; and secondly, with career development becoming the responsibility of the employee (regardless of employment status) how employees might best prepare for this assumed active autonomy.

We will first provide a snapshot of the current employment relationships available to most Australian workers and consider what effect these relationships have had on the notion of career paths. We will also summarise the most salient theories relevant to contemporary career development. Finally, we will seek strategies from the literature on how employees and employers might support career development within this new paradigm. While there has been some research into the effects of job insecurity and flexible work arrangements on occupational health and safety (LaMontagne et al. 2012; Lipsig-Mumme 2005) there has been less into the effects on career path opportunities. We also question the notion of career paths within many contemporary organisations and also the discourse that suggests most individuals have the capacities to negotiate career paths across organisations.

This chapter is structured to examine the macro-situation in terms of the socioeconomic-political reality of employment in developed economies, the meso-situation in terms of what happens in organisations around work practices and the micro-situation of the individual employee. Open systems theory and common sense indicate that all are related and can be interdependent.

The Contemporary Employment Environment

All careers are embedded within a context of broad socio-cultural, economic and political factors which may either enable or constrain career opportunities (Lawrence 2011). In Australia, data from the Australian Bureau of Statistics (ABS) indicates a trend towards non-traditional employment, or employment that is not full-time and ongoing in someone else’s business (Waite and Will 2002). The nature of employment in Australia has become more diverse, with a growth in forms of employment other than the ‘traditional’ arrangement of a full-time, ongoing wage or salary job, with

regular hours and paid leave (ABS 2012). Flexible working arrangements include negotiated part-time work, working from home, flexitime, job sharing or periods of approved leave such as annual, parental or sick leave, as well as casual employment, temporary, fixed-term contracts or annual fixed-hour contracts. Kramar (2012) found that in 2008–2009 more than 50 % of the Australian workforce was subject to flexible work arrangements. In that period the use of weekend work and annual hours contracts increased dramatically and declines were reported in the use of flexitime, job sharing and working from home.

While the increase in temporary work appears to be a global trend (Connelly et al. 2007; Hevenstone 2010), the growth in Australia is more evident than in the US and most EU countries (LaMontagne et al. 2012). For example, in the OECD Australia ranks second only to the Netherlands in the rate of part-time employment (McDonald et al. 2008) and after Spain, has the highest rate of temporary work (Evans 2013).

Core and Peripheral Employees

In response to the demands of a dynamic, competitive and global labour market organisations have developed structures that facilitate flexible patterns of work, in part as a way to retain ‘core’ employees. Termed the ‘flexible firm model’ (Holland et al. 2002), this approach replaces the traditional hierarchical model of an organisation and redefines the organisation into ‘core’ and ‘peripheral’ employees. The core employees reflect the need of an organisation to have a permanent, highly skilled group of employees with internal career paths and the peripheral workforce provide the organisation qualitative or numerical flexibility (Holland et al. 2002).

The core employees experience a high degree of job security and professional development and will benefit most from policies generally referred to as ‘high commitment management’ (Guest 1987, cited in Deery and Jago 2002) including access to the internal labour market, which refers to the institutional rules and procedures, such as recruitment, training, promotional opportunities, pay and job security, that govern the employment relationship.

In contrast, the peripheral workforce is generally used for day-to-day activities that are important but not critical to the organisation, to meet high demand or special projects. This ‘numerical flexibility’ is said to offer financial savings to organisations (Deery and Jago 2002) by allowing them to adjust labour in response to market fluctuations and service requirements while shielding their core or permanent workers from job instability (Capelli and Neumark 2004). Peripheral employment can be summarised as non-standard forms of work (such as part-time, fixed term and casual employment) conceptualised as secondary labour market employment (Deery and Jago 2002), characterised by precariousness, low pay, lack of opportunities for training and career advancement, lack of protections, and social and economic vulnerability (LaMontagne et al. 2012).

Part-Time

During periods of economic downturn, demand for labour changes, with full-time employment tending to fall and part-time employment tending to grow (ABS 2012). This pattern was experienced in the early 1990s, 2001–2002, and again in the period 2008–2010 (ABS 2012). The proportion of employed people who were working part-time rose from 22 % in 1990–1991 to 30 % in 2010–2011 with females accounting for approximately 70 % of all part-time workers (ABS 2012). Part-time work has always been dominated by women: the ABS (2012) observed that close to three quarters of all part-timers in August 2011 were women. However, in recent years there has been an increase in the proportion of men working part-time, typically at the start or end of their working lives. Many younger men combine work with study, while those in their late 50s or older may be in transition to retirement (ABS 2012).

Fixed Term Employment

While scrutiny of ABS data does not allow us to determine whether or not fixed-term employment is becoming more common, Waite and Will (2002) in a report commissioned by the Productivity Commission asserted that at least 3.3 % of employed persons worked as fixed-term employees in 2000. According to the ABS (2012) the majority of fixed-term contract employees (72 %) expected that their contract would be renewed, indicating that many may have a longer tenure than their employment arrangement would suggest. Unlike casual employees who are hired on a needs basis with termination possible at any time and without any requirement for advance notice, those employed on fixed-term contracts have a relatively high degree of certainty of tenure (Waite and Will 2002). There are a number of reasons for the increasing popularity of flexible working arrangements. From an employer perspective, they enable employers to respond to market fluctuations and service requirements, to reduce labour costs and for some act as a buffer for permanent employees from job loss (Connelly et al. 2007). While fixed-term contracts may be offered up as an opportunity for an organisation to contain costs, from a labour management perspective using a fixed-term contract to fill a genuinely permanent position is likely to exclude a large and possibly high-quality portion of the candidate pool including those who are unlikely to leave a permanent (or continuing) position or contractors accustomed to high hourly rates for a fixed-term appointment (Connelly et al. 2007).

Casual Employment

The majority of new jobs created in Australia throughout the 1990s and 2000s were casual jobs (Watson 2013). Casual work is either portrayed as a ‘bridge’ into permanent employment or a ‘trap’ keeping individuals locked into ongoing casualised work or even joblessness through cycles of ‘job churning’ (Watson 2013). Some view the growth in casualised employment as a positive indicator of a flexible labour market

that is responsive to the needs of employers and a global economy. Others regard the phenomena as less than desirable, seeing a growing polarisation in the labour market between ‘good’ jobs—those with permanency—and ‘bad’ jobs—those seen as insecure, poorly paid and with few long-term prospects for career development and advancement (Watson 2013).

While flexible employment arrangements such as those described above may be sought by some employees in order to balance work with family, study or other non-work activities, many employees may find themselves in employment arrangements that do not satisfy their needs or ambitions, and they may be disadvantaged because they do not enjoy the same level of career opportunities as full-time ongoing employees. While the periphery workforce is not homogenous there is general agreement that it consists of mainly women in low-skilled, casual jobs which, while central to the core business of the organisation, offer no job security (Deery and Jago 2002). It appears that part-time, fixed-term, casual and other forms of precarious employment suit the needs of management rather than the employees.

Watson’s (2013) research on the effect of age on fixed-term and casual workers paints a sobering picture. He found that movement into permanent jobs falls with age, especially when workers reach their mid-40s. For casual male workers the fall is modest until the mid-40s and then drops sharply. For female casual workers the situation is more precarious, with a steady downhill decline that according to Watson (2013) begins in a woman’s mid-20s. Similarly, male fixed-term workers tend to stay in fixed-term work over the life course with little evident decline. This is in contrast to women, whose fixed-term destinations start to decline once they reach their 50s. Finally, the research confirmed that, while male fixed-term workers do not typically move into casual work, female fixed-term workers move increasingly to casualised employment towards the end of their working lives.

The growth of temporary employment has alarmed many observers in Australia. Recently, the Greens in the House of Representatives introduced a private members bill to amend the *Fair Work Act* seeking improvements for Australian workers affected by insecure employment. The Fair Work Amendment (Tackling Job Insecurity) Bill 2012 would provide a mechanism for workers employed as casuals or on rolling or fixed-term contracts to move to either full-time or part-time ongoing employment. While recognising the genuine needs of some businesses to use arrangements that are not characterised as secure employment, the sentiment behind the bill is that the *Fair Work Act* should be amended to incorporate a ‘secure employment principle’ for modern awards and agreements that enshrines ongoing employment as the ‘norm’ (Evans 2013). Similarly, the Australian Council of Trade Unions has recently called on the Australian government to introduce a portable leave scheme to enable workers to maintain and move their annual and sick leave entitlements from employer to employer as is currently the case in the Australian building and construction sector (Evans 2013).

The Ageing Population

In future years the ageing population will increase as the baby boomer generation enters older age (ABS 2012). Over the last 20 years there has been a considerable increase in women's labour force participation, with the largest increases being the participation of older women. Between 1990–1991 and 2010–2011, the participation rate of women aged 55–64 years increased by 29 % and for women aged 45–54 years by 16 % (ABS 2012). Participation rates for men declined between 1990–1991 and 2010–2011 for most age groups. The exceptions were for those aged 55–64 years (63 to 72 %) and those aged 65 years and over (9 to 16 %) (ABS 2012).

As the age of employees increases, so too does an appreciation for generational differences, including career development preferences (Gentry et al. 2009). Much of the research on generational differences in the work context suggests differences between generations including their beliefs about the nature of careers, career development and the psychological contract between employers and employees (Gentry et al. 2009; Vance 2006). However others observe more similarities than differences between the generations (Hole et al. 2010; Clarke 2013), suggesting that older workers do not have any less desire to be developed than younger employees, and that certain opportunities for development are desired by employees regardless of their generation. Muffels and Luijkx (2008) found that, as young people move through important life stages, their preference for a traditional, linear career grows. Smola and Sutton (2002) found that work values are more influenced by generational experiences (for example, social perspectives and changing workplace structures) than by age and maturation and reflected a trend where work is perceived as a lower priority than in the past, which may be a result of the lack of commitment shown to employees by organisations.

Theoretical Perspective: Contemporary Career Progression

Careers are important not only for the component job but because for many people they are a large part of their identity (Inkson 2007). A career is now often described broadly as the unfolding sequence of an individual's work experience over time (Hoekstra 2011, p. 159) or 'the sequence of employment-related positions, roles, activities and experiences encountered by a person' (Arnold 1997 cited in Gunz et al. 2011, p. 1616). Career development theory has developed over the past 100 years and stems from four main disciplines: differential psychology, personality, sociology and developmental psychology.

While cognitive-based theories in particular recognise the reciprocal influence of person and environment and emphasise the effects of social context, they do not adequately explain contemporary career paths. The core concepts of twentieth-century career theories are based on assumptions of environmental stability and a concept of careers as a fixed sequence of stages. Generally, there is consensus in the career development literature that occupational prospects today seem less definable

and less predictable and job transitions are more frequent. The notion of a career path has become increasingly ambiguous. While traditional ‘big company’ career paths still exist, they are no longer the only routes to career success and typically individuals are now expected to self-manage their career paths rather than rely on organisational direction (Ballout 2009; Berntson et al. 2006; Briscoe et al. 2012; Zoogah 2010). Indeed, new careers are more likely to take place outside of large organisations (or across them) and can be typically described as ‘disorderly paths that unfold across multiple organisational, occupational and cultural settings’ (Chudzikowski 2011, p. 300, cited in Baruch and Sullivan 2009).

Contemporary career progression is variously described as ‘boundaryless’ or ‘protean’ While the terms are sometimes lumped together, there are some distinctions. Boundaryless careers break traditional hierarchical structures and are characterised by different levels of physical and psychological movement beyond organisational boundaries, while protean careers emphasise a self-directed approach in which individuals reshape themselves in response to changing work environments. These and other career development theories are interrelated and are all trying to bridge the gap between the traditional theories around career path development and those that attempt to accommodate the flexible nature of organisational and individual life (Baruch 2001). Similarly, Dries and Pepermans (2008) suggested that organisational career management and career self-management theories should be considered as complementary rather than supplementary.

While these theories have dominated the career literature for some years, career theory has been criticised for overemphasising individual agency while neglecting contextual issues including the large-scale economic and organisational changes that impact directly and indirectly on careers (Dries 2011). Indeed, Gunz et al. (2011) asserted that there is little evidence for structural boundarylessness and considerable evidence for the persistence of bounded or traditional careers. They argued that it might be more useful to investigate existing structural factors and boundaries to understand them more as influencers and shapers of careers.

Notwithstanding, in times of economic uncertainty and career unpredictability employees may define career success more broadly than simply upward advancement (Dries 2011). However, hierarchical advancement within an organisation is still found to be desired and remains associated with success (Dries 2011; Clarke 2013). Our, as yet unpublished, research in public rail organisations has found certain professions including engineering, accounting and human resources reflect generally linear careers where all entrants began at the bottom as graduates and work their way up through a series of well-defined jobs undertaken in strict order. This trend was also observed in non-professional job families including trades, technicians and train drivers. Similarly, Clarke (2013) found that managers and many professionals continue their careers over many years in a single organisation including bureaucratic structures such as the public service and large financial institutions where career patterns are still primarily characterised by long-term employment and linear career progression. Employees in occupations in high demand are more likely to enjoy career paths, opportunities for professional development and even job security. Based on the current Australian Skilled Occupations List (Department of Immigration and

Citizenship 2013), occupations in all fields of medicine and health, engineering and accounting might be expected to include career path opportunities. While it is often assumed that younger people tend to boundaryless or protean careers, Clarke (2013) found that recent graduates still considered developing a career within a single organisation highly desirable because it fosters a sense of mutual investment; this is the traditional psychological contract.

Career Paths: Organisational Perspective

Principally, organisations invest in employees' careers because of the value specific careers hold for the organisation. They are also an important transmitter of organisational culture and retain critical organisational skills and knowledge (Clarke 2013). Hoekstra (2011) asserted that career development is crucial to organisations because it enables the development of two values—continuity and effective change—that determine how adaptive an organisation is in response to its environment and which rely on the loyalty of workers making careers in their organisations.

Organisations also play an important role in socialising perceptions of career success. For example, by establishing standardised career paths, organisations implicitly define success and failure within their structures and organisations. Corporate career discourse contributes to the devaluation and obstruction of alternative career models including part-time roles (Dries 2011) and other less visible careers. Within the organisational context, atypical career types including those who do not progress up are generally perceived as less successful in terms of career (Dries 2011).

The literature is consistent in describing career paths as benefiting employees and employers (McLean 2007; Delahaye 2011; Rowold and Schilling 2006). Career pathways can enhance an individual's capabilities, ensuring the employee is not restricted to a particular job, career path or organisation. For the employer career pathways can strengthen the psychological contract between employer and employee and ensure employees have the skills needed both now and in the future to contribute to organisational success. Explicit career pathway frameworks can also be used to attract, develop, engage and retain employees. In their work on organisational support for career development and career satisfaction, Barnett and Bradley (2007) found that those organisations adopting strategies to enhance their employees' career satisfaction also increased their ability to attract and retain employees. In similar research McLean (2007) found that career paths can enable employers to gear their employees' individual career goals into strategic planning and build a strong, committed workforce.

Organisational research has included studies of power relations and the potential for HR practices to be manipulative (Inkson 2008; De Gama et al. 2012). Similarly research has focused on critical ethical approaches and 'macro' critiques of HRM (Islam 2012), including the potential for HRM to reduce employees to material or financial resources through psychological contracts that are increasingly transactional. HRM is essentially the administration of human action, motivation and relationships

at work and as such has the potential for unethical HR practices that range from the allocation of rewards (such as access to development or promotional opportunities) and promulgating ‘false’ promises of structured career paths to potential employees in order to attract and then control them.

Career Path Management and the Psychological Contract: Bridging the Gap

Psychological contract theory is informed by social exchange theory, suggesting a series of actions that generate obligations between employer and employee (Baxter-Tomkins and Wallace 2012). Herriot has linked the psychological contract to career paths by defining an organisational career as the sequence of ‘renegotiation of the psychological contract, which the individual and the organisation conduct during the period of his/her employment’ (cited in Atkinson 2002, p. 15). This focus on the psychological contract emphasises the importance of balancing the needs and concerns of both individual and organisation around career paths. Atkinson (2002) defined the psychological contract as the reasonable set of practical and emotional expectations of benefits that employers and employees can have of each other which is premised on the notions of trust, fairness and ‘delivery of deal’. Simply put, a psychological contract is the ‘reciprocal obligations held by employees and employers’ (Barnett and Bradley 2007, p. 618), typically including career development opportunities.

The psychological contract essentially bridges the gap between the organisation and the individual and can be either ‘relational’ or ‘transactional’. A relational contract aligns with the traditional psychological contract and is based on emotional involvement as well as financial rewards and employment security. It tends to be long-term and involve significant investment by both the employer and employee, including skills development, and is most often present in occupations that involve extensive training. Transactional contracts have a strong economic focus, where employee benefits rather than organisational citizenship drive the contract (Holland et al. 2002; Baxter-Tomkins and Wallace 2012).

Traditionally, a psychological contract was seen as an exchange of loyalty for security. However, ongoing changes in the economic, technological and business environments have established a new psychological contract that is no longer based on the traditional drivers of employee motivation: job security, salary increases and career progression. Instead, employees are just as likely to be in casual, part-time or contract employment and, at least for valued employees (regardless of employment status), employers are more likely to offer competitive rewards and continuous development of transferable skills in exchange for an employee’s high performance and flexibility. Employers are now facilitators, coaches, advisors and enablers for the career development of their employees. In other words, organisations are expected to provide their employees with development opportunities so they are best placed to obtain work if they are no longer needed (Crawshaw and Brodbeck 2010). This is sometimes referred to as ‘employability’.

The Psychological Contract, Career Paths and Employability

The concept of 'employability' has been argued to be a solution to the need to balance the new psychological contract (Atkinson 2002; Barnett and Bradley 2007) in which the employee becomes a 'self-reliant worker' and the organisation develops a 'career-resilient' workforce. Some question this claim, observing that many organisations in the past were already providing their employees with employability and commitment (Baruch 2001) and that now it is the commitment that has been removed. Indeed, as Baruch (2001) observed, it would be inconceivable to offer employability explicitly as a replacement for the traditional long-term employment relationship and career progression.

Holland et al. (2002) highlighted another benefit of promoting employability. For technology-driven organisations dependent on intellectual capital and the capacity of their employees to innovate, the ability to attract and retain those labelled 'gold-collar workers' and manage intellectual capital is becoming a major HR issue. They assert that it is in the employers' interest to ensure that key employees be assisted in moving to new employment in the hope they will join other information networks in their new role and can channel new information to the old network. Holland et al. (2002) also agreed that future organisations will need to strike a balance between maintaining their stock of intellectual capital and creating external networks (including ex-staff) where information is exchanged.

It is generally accepted that employees must become career entrepreneurs. However, Crawshaw and Brodbeck (2010) cautioned that such personal responsibility may increase careerist orientations to work, where career goals are pursued at the expense of organisational goals and job responsibilities. It is theorised that careerist orientations to work develop when an individual's trust in their employer is lost (Farndale et al. 2011). The new psychological contract and organisational emphasis on employability raise challenges for the employer in minimising the potential emergence of a careerist-orientated workforce. It is critical that the organisation maintains trust with employees through fair organisational career management practices. Farndale et al. (2011) also found that the link between employee experiences of management practices including career opportunities and levels of commitment is strongly mediated by perceptions of organisational justice.

Global Mobility

International mobility is a salient fact of the world economy. International assignments are becoming increasingly complex and they create new roles and career paths for expatriates including self-initiated expatriates who are hired on contract and take charge of their career trajectory without the direct support of an organisation (Selmer and Lauring 2011). Obtaining data on global mobility is difficult, although there are references to the self-initiated as an important asset in the global market (Doherty et al. 2011). International careers have been presented as a paradigm

of the boundaryless career, and the literature observes that expatriates move across borders on assignments, frequently change jobs due to the periodical nature of assignment contracts and do not seem committed to a particular organisation (Suutari et al. 2012).

In terms of the psychological contract, McNulty and De Cieri (2011) found that differences in the purpose of an expatriate assignment influence employee expectations of the psychological contract. Developmental assignments require stronger psychological contract support than that required for shorter technical/skills transfer assignments of limited duration. They also found that career development is likely to be a key benefit expected from long-term assignments.

Organisational Support for Career Development

Organisational support for career development (OSCD) refers to the programs, processes and assistance provided by organisations to enhance the career success of employees (Barnett and Bradley 2007), ranging from formal strategies such as career planning and training and development interventions to informal support such as mentoring and networking opportunities. Barnett and Bradley's (2007) research into the relationship between organisational support for career development and employees' career satisfaction found that OSCD is likely to be an important predictor of career satisfaction. Based on an extended model of social cognitive theory and proactive behaviour, they proposed that career management behaviours would mediate the relationship between OSCD and career satisfaction. The model below integrates some of the predictions of the extended model including variables of career satisfaction, organisational support for career development, proactive personality and career management behaviours.

To better manage career development, organisations need to consider career paths as a strategic market differentiator including for those in flexible arrangements such as part-time and fixed-term contracts. They must have effective and transparent policies and procedures to support employee career path activities. Obviously, career path frameworks need to consider the fit between what the employee requires and what the organisation can offer, particularly if the organisation is attempting to get employees to shift from career dependence to career resilience and to think of employability rather than employment (Baruch 2001).

Baruch (2001) recommended a two-fold level of integration: 'internal' integration, referring to practices designed to enhance the career paths of employees, and 'external' integration between the career path system and organisational culture and strategy. At an individual level career path management should focus less on the development of formal career plans and more on the development of attitudes and behaviours appropriate to contemporary employment relationships and that enable employees to be more flexible, adaptable and creative in identifying the next job. This may mean implementing initiatives including short-term projects, rotations or

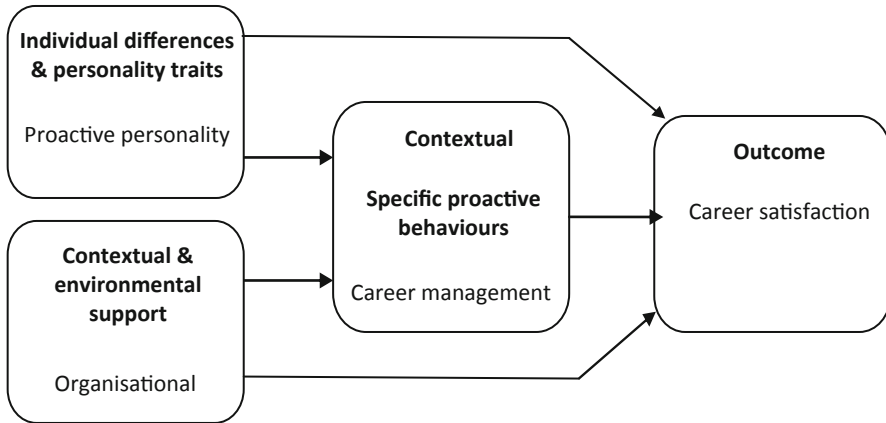


Fig. 4.1 Predictors of career satisfaction. (Barnett and Bradley 2007, p. 621)

secondments that provide opportunities to network internally and outside the organisation. The framework should help the employee understand the employer–employee relationship and encourage the employee to take responsibility for their role in the partnership by staying informed, engaged and making career development a continuous process (McLean 2007). At the organisational level, the framework needs to recognise the relationship between the employer and employee in the struggle to stay competitive. McLean (2007) recommended providing timely, useful labour market information, career guidance or counselling services and support for employees pursuing career path development plans.

Relational approaches to career development such as career networking and mentoring are also important (Hall 2004; Atkinson 2002; Barnett and Bradley 2007) and frameworks should factor in opportunities to use relational influences. Organisations can perform a supportive rather than directive role in enabling career path success by ensuring that employees are not hindered by a lack of career path information and career opportunities.

According to organisational support theory, organisations that promote continuous learning and espouse the belief that development is important for employees (regardless of their employment status) are likely to improve their performance as well as their retention of employees. Career development of employees should support business objectives while developing the individuals involved. Rather than implementing large and complex development systems that are long-term in nature, organisations could promote learning and career growth through work activities that can be done quickly and at a low cost, use existing organisational resources, and can be recognised and remembered as career development experiences (Hall 2002). Rather than formal approaches, organisations should consider naturally occurring workplace events as a way to meet development needs including challenging assignments (e.g. committees, taskforces), authentic feedback (e.g. 360-degree performance review), developmental relationships (e.g. mentoring) and skills building coaching. Many of

these events are spontaneous, everyday-type activities that are more easily integrated by the employee through personal reflection and planning than by the organisation.

Developmental Mentoring Relationships and the New Workplace Realities

Mentoring has long been espoused as a way for professionals to improve their career advancement. With more complex work arrangements and boundaryless career environments, sequential and simultaneous relationships are replacing the more traditional approach of single dyadic relationships (Baugh and Sullivan 2009). Traditionally, mentoring has assumed that both mentors and mentees are pursuing linear careers where the employee may only work for a small number of organisations and remain in the workforce for extended periods. Typically, these mentoring relationships were intense and dyadic where a single individual may have mentored a person over many years. However, Baugh and Sullivan (2009) argued that employees engaging in non-traditional career paths benefit more from mentoring networks because they will need a network of mentors to guide and support their development. They acknowledged that some careers may enact more traditional career paths, and that those employees operating in unstable work and life contexts will more likely require a greater number of mentors.

Individual Career Success

Seibert and Kraimer described career success in terms of ‘positive psychological and work-related outcomes accumulated as a result of one’s work experience’ (2001, p. 2). Career satisfaction can also be defined as the extent to which individuals believe their career progress is consistent with their own goals, values and preferences (Barnett and Bradley 2007). Barnett and Bradley (2007) found that career success can be measured by both extrinsic (work experience outcomes including status, promotions and salary) and intrinsic (personal evaluation of their career progress and accomplishments) criteria. This focus on the subjective indicators of career success reflects the general trend towards individuals self-managing their careers rather than relying on organisational direction.

Individual personality traits and behaviours appear to influence career success. Ballout (2009) referred to a set of personal skills and competencies including continuous learning, tolerance for ambiguity and uncertainty, autonomy, self-awareness and self-efficacy. The term ‘career resilience’ can be used to describe these attributes (Atkinson 2002). Barnett and Bradley (2007) referred to the ‘proactive personality’, which is linked closely to both career path management behaviours and career satisfaction. People with proactive personalities tend to identify and act on career enhancement opportunities. These behaviours typically include career exploration,

planned or structured skills development and self-promotion (Barnett and Bradley 2007; Siebert and Kraimer 2001). There also appear to be causal outcomes associated with proactive behaviour and more successful and rewarding careers. Siebert and Kraimer (2001) and Barnett and Bradley (2007) found employees with high proactive behaviours experienced greater career satisfaction than those with lower proactive behaviours.

Rowold and Schilling (2006) found the level of identification or involvement an employee has with his/her work, self-need for improvement and career insight are important personal determinants. In particular, they highlighted the practice of 'career exploration', arguing that the extent to which an employee acquires information in a systematic or intended way is likely to yield a better understanding of personal development needs. Similarly, Sargent and Domberger (2007) found that young adults categorised as having a protean orientation also engaged in critical reassessment of their careers and that this distinguished them from others in the research who exhibited a more traditional career orientation. Hall and Chandler (2005) referred to two 'meta-competencies' required for learning how to learn, adaptability and self-awareness, which they argue allow individuals to learn from experience and develop new competencies independently of the employer.

Self-efficacy

Self-efficacy refers to a person's belief about his or her 'ability to mobilise requisite motivation, cognitions and actions to successfully complete a specific task' (Kellet et al. 2009, p. 535). It is important in helping an individual make decisions regarding career paths (Lent et al. 1994). In their research on 'high potentials' Dries and Pepermans (2008) found participants admitted to continuously passing on information regarding personal career goals to management and believed they owed their successful careers mainly to their assertiveness. In the extreme this level of self-efficacy may lead to a 'careerist orientation' as mentioned earlier in this chapter. Those with high self-efficacy are likely to set higher career goals, expend more effort and pursue career strategies to achieve their goals and ultimately career success. Briscoe et al. (2012) conducted research into the efficacy of protean and boundaryless career attitudes and associated coping mechanisms during economic recessions and concluded that such attitudes may help employees develop career skills to cope with uncertain career environments.

Visibility in the Workplace

While employees may have greater access to flexible working arrangements, and indeed this is often encouraged by employers, such arrangements often mean an employee is less visible to colleagues and management. McDonald et al. (2008)

explored the effect ‘temporary invisibility’ has on career success. They found that workplace absences including part-time employment, telework, flexi-time, job sharing and periods of approved leave such as parental or study leave resulted in what they termed ‘career penalties’. McDonald et al. (2008) also reported on the allocation of fewer organisational rewards, including promotions, for employees who utilised family-friendly policies because of a basic assumption that being an effective parent is incongruent with being a committed worker. Employees on relatively short-term contracts suggested that they did not take leave because they perceived that invisibility in the organisation jeopardised the possibility of permanent employment (McDonald et al. 2008).

Conclusion

The academic literature appears to support the assumption that the traditional or organisational career has increasingly been replaced by more flexible, individualised notions of career development where the responsibility for professional development, learning and career development has shifted from the organisation to the employee. The research also suggests that learning and development and career path opportunities are increasingly likely to be restricted to certain sectors of the workforce. Those workers who are most likely to access career opportunities are those considered core workers (as opposed to peripheral), with high-demand professional or managerial skills sets and who work in large institutions or bureaucracies. They would also typically have the self-efficacy and vocational personalities to be adaptive and mobile. In contrast, those not considered core and with low self-efficacy are often restricted to relatively precarious work arrangements including part-time, fixed-term and casual work conditions where development and career path opportunities are unlikely to be part of the psychological contract regardless of the size of the organisation.

Undoubtedly, flexible arrangements are sought by some individuals in order to balance work and non-work activities. In addition, some employees want the freedom to make their own career choices free from the constraints of traditional career hierarchies. However, it would be simplistic to claim the traditional or organisational career is irrelevant or dead. Recent career development literature confirms that organisational careers are still desirable and that many employees want something more than a transactional relationship with their employer. Such employees will seek out organisations that value relational psychological contracts and which are more likely to provide opportunities for career growth. Regardless of age or gender, there are many who continue to seek job stability even if only for as long as they choose to stay, identifiable career paths and support from their employers in managing and developing their careers.

Our research for this chapter confirms that, regardless of economic fluctuations, organisations still have a role to play in the career development of their staff simply to support the continuation of an organisation’s strategic plan and because staff capacity is central to the present and future viability of an organisation. Organisations that promote flexibility in their workforce for financial reasons and focus on employability

over employment security may find that it is a double-edged sword as they lose this creative capital as well as employee loyalty.

In this chapter we have attempted to shed some light on a subject that is of critical importance not only to employees and HRM practitioners but to organisations, some of whom are still seeking loyalty and commitment from their employees while withholding attributes of the psychological contract most employees would consider fair and reasonable—employment security and career development opportunities.

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Chapter 5

Skills Recognition and Recognition of Prior Learning for Workforce Development: Challenges and Possibilities

Lisa Davies

Abstract In this chapter, the terms ‘skills recognition’ and ‘recognition of prior learning’ are unravelled and some complexities involving the concept of competence are also examined. Current research in pedagogical and policy practice is considered and, more specifically, the role of adult educators who are skills recognition/recognition of prior learning assessors and trainers. The literature and a two-and-a-half year qualitative research project undertaken in Australian industry revealed that the use of skills recognition assessments to identify and formally recognise previously unrecognised skills, knowledge and experience of employees could increase workers’ engagement. However, some problems emerged. People in assessor roles are driven by multiple factors including educational policy, idiosyncratic individual and organisational needs, and socioeconomic forces. The potential ethical concerns related to how adult educators can reconcile the tangential drivers of relevant policies, the managers who pay for their educational services, their own employers, and those of their adult student/applicants for skills recognition are discussed. Some approaches which can mitigate these difficulties are also identified. The principles of sound skills recognition (and recognition of prior learning) practice are also outlined and the means by which they can be used to enhance workforce capability with confidence and in an ethical manner are explained.

Skills Recognition

Skills recognition and recognition of prior learning have been frequently identified as processes that can be used to increase the productivity, engagement and satisfaction of workers (Bateman and Knight 2003; Leary 2009). There are several reasons associated with this: skills recognition formally recognises not only the skills and knowledge that people have acquired through formal education, but also those that have been developed during work and life experiences, informal learning

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and non-formal learning. Identifying these formerly unrecognised skills and potentially granting formal qualifications to people who have the relevant skills, aptitudes and knowledge has been cited in numerous literature as being highly beneficial for employees and employers alike (Andersson and Guo 2009; Skills Australia 2010).

However there are various views about what skills recognition is and what processes may be involved. In Australia, the process has generally been referred to as recognition of prior learning (RPL) and recognition of current competencies (RCC). To make this a little more complex, both here and internationally, additional terms are used to describe aspects of skills recognition. These include, among others: learning assessment of prior learning, accreditation of prior experiential learning, accreditation/assessment/recognition of prior (experiential) learning, accreditation of prior learning and achievement, prior learning assessment and recognition, recognition of non-formal and informal learning and validation (Maher and Morrison 2010, p. 7–8). In this chapter I will use the term ‘skills recognition’ as it encompasses all of the above activities.

Recent research also indicates that the concept and process of recognising skills goes beyond the conventional notion of programs designed to accredit prior learning. It is also a useful component of assessment, training, human resource management and workplace development (Morrison et al. 2010). Moreover, skills recognition processes also often go unnamed or are used while not being identified as such during activities such as recruitment, knowledge management and training needs analyses and so on. Another often neglected aspect is that these are often used informally within a workplace. This is exemplified by giving people more senior acting positions in response to their demonstrating increased skills levels that they may have developed on the job. This is not a formal recognition that will lead to a qualification, but it is the recognition that some employees have developed their skills and expertise. Similarly people may rise through salary brackets based on strong performance in their workplaces; they may be invited to mentor more junior, less experienced employees or facilitate internal training. All of these processes can fall under the generic umbrella of informal skills recognition, and are often referred to as RPL or skills recognition in internal human resource documentation.

In this chapter however I focus on the formal use of skills recognition which may lead in part or completely to a formal qualification, depending on what qualification is being sought.

The Rubbery Concept of Competence

There is simultaneously a demand in Australia, as elsewhere, for adult workers to undertake continuous learning as it is assumed that their resultant increased competence will lead to increased economic productivity. What constitutes desirable workplace competencies that are identified as integral to such continuous learning—and which may or may not relate to increased productivity—has however been a contentious issue as the key notion of ‘competency’, which is embedded in skills recognition, is often defined inconsistently.

Le Deist and Winterton (2005) examined the differing interpretations of what constitutes competence in the UK, USA, France and Germany, with the intention of developing a richer and more holistic interpretation of it. They noted that, in each instance, what are often referred to as softer skills were being added to the purely functional skills that earlier, narrow definitions of competence included. There were also differences between each country's constructs, which suggests that some cultural factors come into play.

Competencies can also be referred to as generic competence, or skill, knowledge and ability, which could apply to anyone in an organisation. These would include having the requisite skills and ability to train people in an organisation. In other situations, such as assessing the competence of people in high-risk occupations (surgery, nursing, food preparation, transport and so on) there are clearly some very specific, high order competencies that are required, which need a greater degree of assessing and testing to ensure competence and hence human safety.

How competence can be measured will vary, often as a result of differing philosophical underpinnings. Street (1995) proposed that an autonomous model of the assessment of a competency such as, for example, literacy, reflected purely positivist practice, exemplified by workplace psychometric testing. By contrast he stated that there was also an ideological model characterised by a postmodern approach in which context, socio-cultural practice and critical discourse are embedded. Within this framework, education to increase competence was promulgated with the intention of reducing discriminatory social activities.

Further to this, Londsdales and McCurry (2004, p. 14) proposed that there are three major notions about the specific 'competence' of, for example, literacy extant in Australia, which they summarised as:

- a cognitive model associated with a psychometric tradition, with quantifiable levels of ability, and a deficit approach to non-competence;
- an economics-driven model generally associated with workforce training, multi-skilling, productivity, 'functional' competencies, and notions of gaining more human capital with increased competence; and
- a sociocultural model which is most commonly associated with contextualised and multiple (literacy) practices, a valuing of the 'other', and a strong critical element.

In addition to this, in their research in New Zealand, Cowie et al. (2009) found that the context in which demonstrations of competency were undertaken was crucial for reasonable assessment judgements to be made.

Research that was undertaken in 2010–2012 in the Australian rail industry found that there were varying concepts of what competence actually meant. These inconsistencies highlighted the differing knowledge and understanding held both by people in training and assessment roles and non-educators across interviews and organisations in this sector. For example, several people referred to the notion of currency of competence, which led to some discussion about what currency was. One participant in a group interview queried rhetorically that if her driver's licence expired

today, would that mean that she was no longer competent to drive tomorrow. It appeared in more than one instance that there was some confusion about the meaning of competence and the concept of something being ‘legal’ or associated with licences and certifications. Other participants were concerned that two people could both be assessed quite legitimately as ‘competent’ according to the assessment criteria, but that this did not highlight the difference between a person who was competent to do their role, and one who had outstanding abilities.

Other assessors suggested that the emphasis on identifying knowledge (the theory) and skills (the practical ability) ignored the ‘behavioural’ skills or soft skills that they considered to be crucial in all areas of the workplace. People needed to know how and when to make decisions and what to take into account when they were under pressure, irrespective of their roles. In some rail organisations, all workers were put through full training, irrespective of previous relevant education, certifications and work experience. This was done in an attempt to mitigate what they perceived to be organisational risk. That is, if litigation occurred following an ‘incident’ and it was found that the person involved had undergone competence assessment through skills recognition and had been deemed competent—rather than attending formal training—they feared that their organisation would be deemed at fault.

In essence then it could be determined that how you define competencies is reflected in your responses to perceived social and/or economic needs and current context. It is useful to look at a defining framework of what constitutes competence that, while based in an organisation perspective, is somewhat more holistic than some others and is neither a deficit model nor one that is too narrow to be practicable.

Using a Practical Definition

The Australian Skills Quality Authority defines competency as: ‘The consistent application of knowledge and skill to the standard of performance required in the workplace. It embodies the ability to transfer and apply skills and knowledge to new situations and environments’ (ASQA 2012, p. 42).

To reduce the potential problem of limited understandings of what competency is, and to increase awareness about what skills recognition can be used for, in this chapter I focus on the ASQA definition as it is practical in its clarity and general applicability. Furthermore, when proposing the use of a more holistic approach to skills recognition processes—in which assessors use evidence from multiple sources to map skills and knowledge gained through informal, non-formal and formal learning against defined competencies or capabilities—this definition works well. The assumed goal of a skills recognition process is to assist an applicant to gain all or part of a recognised qualification if they indeed can demonstrate that they can apply their current skills and knowledge to new situations and contexts. If not, tailored gap training can be undertaken.

But what if there are more covert agendas at play?

What are the Motives that Drive Skills Recognition?

Now let us examine a potential conundrum: is adult education and training intended to achieve social justice for the individual, is it socio-cultural engineering, or is it solely embedded in economic imperatives? In the specific case of assessing skills, is this an employer's method of determining whose skills are lacking or atrophied to identify who would benefit from gap training? Is it a method for identifying skills gaps to determine who can be made redundant or demoted to make way for more skilled workers? Is it something else? The second and third (a frightening unknown) motives have been identified as a very real concern for employees and their unions in both Australia and the United Kingdom.

Overt and Covert Motives

There is currently an acknowledged need to educate people to ensure a steady supply of skilled Australian workers, particularly in currently expanding sectors such as mining, resources, power supply and to replace ageing baby boomer workers. This is not in itself invidious. In 2012 the then Australian Prime Minister and Minister for Skills, Julia Gillard, cited Skills Australia as having estimated that between 2012 and 2015 Australia would need an additional 2.1 million people in the workforce with vocational and education training (VET) qualifications; this from a 2013 total Australian population of 23 million people.

There are however differing and tangential drivers for using skills recognition to assist people to gain formal VET qualifications. These include the potential benefits for the individual worker who participates in workforce development processes, the socio-cultural value of undertaking workforce development and the economic benefits of workforce development for enterprises. These are all underpinned by the urgent need to identify skills, atrophied skills and skill gaps by using skills recognition and related training to educate Australian workers in general. This is being supported by the Australian government's initiative to provide funding to increase the availability of free or reduced cost VET, with the intention of ensuring that approximately an additional 375,000 people will have completed formal qualifications over the following five years in Australia (Gillard 2012).

A tension becomes apparent when examining the differences between the motives that underpin government-supported and promulgated social policy and subsequent action. Some aspects are based upon an economic imperative in which workforce development is perceived to be essential to maintain or increase employee productivity and enterprises' profits. By contrast others are centred in a social justice perspective—commonly associated with respect to the social milieu, multi-layered educational practices and a valuing of the 'other', in which education is intended to overcome an individual worker's—or group of workers'—social and/or economic paucity and/or lack of social capital. Such education is intended to reduce the social constructs by which people could be stigmatised or discriminated against.

While the training reforms referred to by Prime Minister Gillard were described as being undertaken to ‘help Australians get the training they need to get a job, change careers or boost their chance of getting a better-paying job’ (Gillard 2012), that is, benefitting those people whom the government should serve, there are additional agendas at work. Another layer is that such action is driven not only by the dual desire to increase both an individual’s social capital and income and businesses’ profits to support economic stability, but also by the less acknowledged desire to reduce the number of people who are receiving government support and to increase the base of taxpayers. This kind of difference between the rhetoric and reality of social policy is a problem that is familiar to many adult educationalists.

Where do Ethics Come into This?

This raises the questions: What are the purposes of education that are being promoted? Whose interests are being served? Whose voices are and are not being heard? What are the implications for educational practice? Are we making ethical decisions when following policy and/or the demands of the people who employ us? What are ethics and morals? Are they the same thing?

At its simplest, ethics is a system of moral principles. It affects how people make decisions and lead their lives. Ethics is concerned with what is good for individuals and society and is also described as moral philosophy. It covers the following human dilemmas:

- How can we live a good life?
- What are our rights and responsibilities?
- What is the language of right and wrong?
- And what is good and bad moral decision making?

To avoid becoming mired in the complexity of overlapping and contradictory ethical theory, a practical explanation of the forces that drive our current moral questions follows.

Consequentialism

The moral theory of consequentialism suggests that whether an act is right or wrong is dependent upon the consequences of that act. The greater the number of good consequences that are produced determines the goodness of the act. From this moral perspective, the process is less relevant than the final outcome. While attractive in some respects, there are flaws inherent in this approach as it does not provide us with guidance about how to weigh up which processing actions to take when faced with moral dilemmas. Consequentialism can also lead to some uncertainty, as we are not always in a position in which we can assess what the final outcomes of our decisions will be. An immediate short-term solution may appear to be highly merit worthy; however it may trigger an unpredictable chain of events that leads to morally questionable outcomes.

Deontological (Duty-Based) Theory

This is a theory in which adherents posit a universe that is proscribed by clear rules which are inviolable, irrespective of the context. For example, a deontological perspective would be that it is wrong to tell lies, or it is wrong to steal irrespective of the context. In short, someone who is adhering to duty-based ethics is more focused on adhering to the process, the rules, rather than the outcome. A strength of this system of thinking is that it underpins some aspects of human rights by respecting all individuals and not just a group outcome. It focuses on the individual's right not to be killed, not to have their goods stolen and not to be lied to. It provides structure and comfort in an ambiguous world. However, like consequentialism, it has its flaws. It does not take into account that meeting the need of an individual may lead to problems for the whole group. Moreover, it does not assist in situations in which your 'duties' are at odds with each other.

Situation Ethics

Yet another theory that can impinge on the work of educators and assessors is situation ethics, in which each case is individual and can therefore have individualised moral decisions made about it. It presupposes that it is possible that ethical decisions can be made with contextualised, very flexible, if not idiosyncratic, guidelines. The rightness of an action does not reside in the act itself but in the loving configuration of the factors in the situation including the motive, means or process and any foreseeable consequences (Fletcher 1967).

Multiple Ethical Responses to Many Dilemmas

With the above theoretical frameworks in mind, what follows reflects the multiple responses to the kind of ethical dilemmas that educators, and in particular assessors, may face on a regular basis.

Again, there is more complexity. Our ethical responses to the conundrum about the gap between socio-political rhetoric and reality are shaped by differing factors. For example for some people a personal sense of morals will inform their actions, while others may rely on their religious beliefs or professional experiences in their approach to ethical dilemmas and making ethical decisions. Others rely on external codes of conduct and prefer clear rules to define their decision making (Kohlberg 1973). Arguably, a person's gender can also be influential when social and moral judgements are made (Gilligan 2011). There are also difficulties that can arise if you unwittingly violate the unspoken and unwritten codes of conduct in an organisation, or conversely use the fact that such codes are not published as a justification for your actions.

In the late 1980s and 1990s the function and purpose of adult educators had been examined at length; the central question of whether adult educators were tasked with providing services that would empower the individual—as opposed to an organisation and its shareholders or society in general—was appraised. In 1988 Sork focused on what he identified as the ethical quandary of basing the content and intent of adult educational training on needs that were potentially neither understood nor acknowledged by the adult learner and were instead driven by the requirements of employers. In their research into the ethical concerns that adult educators experience regularly, Gordon and Sork (2001) found that educators were disquieted by issues pertaining to evaluating their students, because of the inherent problem caused by their desire to maintain equitable evaluations and the conflicting organisational pressure to allow students through a training course to ensure that success rates were high. High student success rates in institutions that were competing for students were seen as highly desirable from a marketing perspective.

Gordon and Sork's (2001) participants were also asked whether they thought that a code of ethics would assist them in their practice. This proposal was endorsed by many who considered that such a code would give them the clear guidelines that they needed to undertake their roles with confidence, would potentially increase ethical behaviour among assessors and would simultaneously decrease their own accountability for the determinations that they made. However, several dissenting voices emerged. One person suggested that if someone had an internal set of moral codes they would not require a prescriptive set; another that even if there were a code, people uninhibited by such matters would be unlikely to follow it. Others were concerned about the nature of any embedded enforcements, that is, if the code were breached, wittingly or otherwise, it could lead to punishment in one form or another. Moreover, others were concerned about who would develop the code's content, and that it would lead to yet more bureaucratic limitations on their practice. There was also a questioning of some extant codes of conduct in which following the code's rules was explicitly underpinned in the policy. As Gordon and Sork (2001) point out, such codes were invariably developed by the dominant power group whose intention was to maintain the status quo, and so would preclude the activities of people who challenged oppressive rules and laws regularly in the pursuit of social justice.

In short, the following question emerged: How could adult educators reconcile the potentially diverging concerns of policy-makers, manager-clients who purchase educational services for their own enterprise and the formal institutions that employed the assessor-educators, with those of the applicants for skills recognition (Lawler 1996; Wilson and Cervero 1996)?

Some Mitigating Strategies

In response, Brockett (1990) and Lawler (1996) recommended some approaches that could be undertaken by adult educators who were uneasy about this dilemma which could increase their sense that they were engaging in ethical practices. These

strategies included using self-reflexivity: Caffarella and Merriam (1999) suggested that we could learn by critically examining the judgements that we had made in complex and multifaceted situations. Our prior experience of similar situations, about which we had amassed a great deal of knowledge—a virtual toolkit—means that in comparable situations we could access our toolkit of prior experience and our decisions could be made more readily. But reflective practice is itself a contentious concept, as it assumes that the practitioner is focused on problem solving in an ethical manner by contextualising the situation and, importantly, being very aware of the power discordances that may be at play. This requires a highly developed sense of personal critical insight.

Given this, it is very useful for adult educators to practice examining their personal values and reflecting on the ethics of their own practice, in a manner not dissimilar to that undertaken by qualitative, interpretive researchers. In brief, you examine the situation in which external intentions, actions and desired outcomes challenge your own values. You need to examine how your own experiences have developed your values, and hence examine your own intentions critically. Are you adhering to a set of values that puts another, less powerful person in a difficult situation? Are you being stubborn or making judgements based on personal biases? Are you willing to take risks at work to ensure that you are behaving in what you regard as an ethical manner? This is particularly the case if you accept the premise that our knowledge and values are socially constructed; they are inevitably influenced by and filtered through our own social, historical and social-political perceptions (Patton 1990; Hammersley and Atkinson 1995).

Educators also need to ensure that they do have all the information that is pertinent to the situation. They can ask themselves: How would I feel if I were the applicant and this decision were made? How would I feel if information about my decision-making process became (hypothetically) public knowledge to my manager, my co-workers, or even my family and non-work circle of friends? If you had a trainee or graduate shadowing you when undertaking a skills recognition assessment, would you have dealt with the assessment differently? What kind of professional practice values are you modelling for a person who is new to your workforce? Are you putting that graduate in an unnecessarily difficult position, in which your actions are at odds with what they have learned about ethical workplace behaviour? Educator/assessors need to be alert to all of these matters.

In the 1990s educators were also encouraged to find some time for assessor group reflection and discussion about what they perceived to be issues of moral principle to enable the shared identification of ethical dilemmas and conflicts and to investigate ways in which they could be overcome. This legitimising of discussion about ethical matters mainstreams it so that it becomes routine practice and becomes embedded in an organisation's culture. This suggestion was also raised in our research.

Brockett (1990) also recommended that practitioners undertake critical analyses of the ways in which other professions deal with ethical dilemmas, and to undertake research into ethical matters in adult education to further inform themselves. There are also numerous endorsed and recognised certificate courses where people can receive training in how to use effective problem-solving techniques when exposed

to competing value systems. Such education can assist in clarifying poor ethical decision making, for example a reliance on relativism and rationalisation which ultimately serves one's own interest. It also teaches the way in which you can garner courage and use the wisdom that you have gained to make ethical decisions, even if it can be a fearful route to take. Such activities can be very useful in empowering educators and assessors to be more confident about identifying and solving ethical problems.

Building Positive Employee–Employer Relationships

Power dissonances are inevitable in organisations. Those with power are more likely to be in a position of authority whereby they can punish a person who violates their trust and are hence often more trusting, knowing that the people who report to them are fearful of reprimand if they breach their manager's trust. Conversely, the person with little power has limited ways to protest if their managers betray their trust, with the exception of taking strike action or leaving that place of employment, both of which are major measures. Being less powerful, they can feel more inclined to be vulnerable to manipulation, and are less likely to be trustful of their managers and supervisors. However, employee trust in their employer's motives has been extensively described as being a key to minimising employee disquiet about and even rejection of managerial decisions (Covey 2006).

In relation to this, transparent communication in organisations has been frequently cited as a major key to the generation of trust in an enterprise. Such communication is usually defined as being transparent, where managerial motives and strategies are shared openly with all employees, where two-way feedback is encouraged, employees are encouraged to take part in decision making and all policies and procedures are freely disclosed to all employees.

Therefore, as an additional ethical approach, it is useful for educator-assessors to become informed about what the drivers behind the support for skills recognition in an organisation are, to become informed about how they can inform applicants about these motivations, and then to be transparent about these with those people who are applicants, or have been asked in their workplaces to undertake the process. This degree of knowledge also empowers the educator-assessor to know that they are behaving in an ethical way.

Offering the opportunity for employees to undertake a skills recognition assessment for reasons that are underpinned with open and honest motives can assist with the development of positive employer–employee psychological contracts. These are formed through the interactive social process of examining the skills and knowledge that employees have, with the goal of confirming employee competence for a position for which they were not formally qualified or to identify areas in which tailored training would benefit both the recipient and their employing organisation. This is a validating experience for most people.

There is abundant evidence that acknowledging and developing the softer skills in human workplaces, including those of knowing how to identify and undertake ethical behaviour, promotes employee satisfaction and increased productivity. People will stay with an organisation in which they observe that the claims made in words and behaviour align with subsequent managerial actions. This of course all links to transparency in communication.

It should be noted however that, for adult educators who do not hold such concerns and who undertake skills recognition assessments as directed by their employer and client organisations without questioning motivations, such issues would not be of concern. Whether or not such pragmatic approaches are questionable is a highly contentious point and lies at the heart of emerging critical human resources theory.

Skills Recognition and Changing Policy

Unlike some more generic workforce development processes such as internal staff training in customer service and so on, formal application of skills recognition is governed by highly regulated policy in Australia. Only Registered Training Organisations and Enterprise RTOs can use formal skills recognition processes to assess the possibility of attaining and granting an accredited qualification. Like many countries, the underpinning policy has recently changed in Australia and this has had an impact on the way that people interpret and use it.

However, as Hogwood and Peters explained, 'Policies are rarely written on a *tabula rasa* but rather on a well-occupied and even crowded tablet of existing laws, organisations and clients' (1983, p. 1). Moreover, ethical codes of conduct are organic; they will change over time in response to social changes, as exemplified by the antidiscrimination policies that are now routine in many First World workplaces, but which were unheard of in the 1960s.

So, despite these initial potential difficulties, the principles of sound skills recognition practice that I detail shortly have not changed and they can be applied readily in ways that support ethical workforce employee development.

Using Skills Recognition in Differing Organisations

Industries vary in size, composition and focus; hence the context of the organisations must be taken into account when developing leading practice skills recognition guidelines that meet that industry's needs. The purposes, orientation, management and operational styles of private and public companies can also vary considerably. The organisational culture of many companies is also undergoing significant change in terms of technological development, privatisation, increasing associations with developing sectors, increasing numbers of migrant employees, the development of equity and diversity strategies, an ageing workforce, and concerns around globalisation and sustainability.

It is acknowledged under the Australian Qualifications Framework (AQF 2013) that there is no one SR/RPL model that is suitable for all qualifications and all situations. However, the National Principles and Operational Guidelines for Recognition of Prior Learning (AQF 2013, pp. 78–79) in Australia outline several principles that need to underpin pathways for the purposes of issuing recognised qualifications in Australia. These principles are that they:

- are clear and transparent to students/applicants;
- are systemic and systematic;
- will enable flexible qualification pathways;
- may be horizontal across AQF qualifications at the same level as well as vertical between qualifications at different levels;
- can facilitate credit for entry into, as well as credit towards, AQF qualifications; and
- can eliminate unfair or unnecessary barriers for student/applicant access to AQF qualifications.

Sound decisions need to be made to allow credit outcomes to be used to meet pre-requisites or other specified requirements for entry into a program of study leading to a qualification or for the partial fulfilment of the requirements of a qualification. These need to be formally documented for the student and for quality audits and must include any reasons for not giving credit. Sound decision-making processes are as follows:

- Decisions need to be evidence-based, equitable and transparent.
- Decisions need to be applied consistently and fairly and be subject to appeal and review.
- Decisions need to recognise learning regardless of how, when and where it was acquired; provided that the learning is relevant and current and has a relationship to the learning outcomes of the qualification.
- Decisions need to be academically defensible and take into account the students' ability to meet the learning outcomes of the qualification successfully.
- Decisions need to be decided in a timely way so that students' access to qualifications is not unnecessarily inhibited (AQF 2013, pp. 78–79).

These guidelines hence constitute an ethical code of conduct (rather than an overly constrictive code) to be followed when undertaking assessment of a person's transferable prior skills and knowledge.

Sound Practice in Skills Recognition Assessments

The details of how to undertake skills recognition are often determined by the environment in which they are undertaken. In sectors that define themselves as being highly safety critical, including construction, transport, aviation, maritime and even food preparation, some assessors may feel constrained in their skills recognition assessments, and may be uneasy about making informed judgements in areas deemed

safety critical. However, the following recommended practices do not involve risk and should underpin any skills assessment.

The processes should be designed to be as user-friendly as possible for the applicant, while also meeting the needs of the employer. In Australia the ASQA requires Registered Training Organisations (those that are accredited to offer formal skills recognition) to inform their applicant clients of the training, assessment and support services available to them before they enrol or enter into a training contract. This information should include the availability of skills recognition services and details of the process.

The skills recognition process should be more personal than merely requiring an applicant-student to collect documentary evidence. Instead, the process should involve both the assessor and applicant working together, with the assessor assisting the applicant throughout the process. It is also useful to identify why the applicant and/or the employer are considering skills recognition, so that the assessor can give relevant advice about which course of action to take, and what kinds of evidence will be required. This may also unveil any unspoken motivation on the part of either party. Is the employer looking for evidence of a lack of skills to determine whether this person can be made redundant? Is the employee expecting their employer to fund the assessment process, so that they can immediately leave for another job elsewhere, with their new qualification?

An assessor needs to understand what the applicant does and or does not know about the assessment process to ensure that there are shared expectations. The assessor needs to be open to questions and to provide advice freely throughout the whole process; this includes outlining the process clearly, both verbally and in writing, in jargon- and acronym-free language (Smith 2004, p. 5) to ensure that, for example, people are not bewildered or alarmed by the education jargon of mapping competencies and challenge tests. The support of an interpreter is also recommended where required.

Using culturally inclusive approaches that may include story sharing and informal conversations to encourage practical demonstrations of skills and abilities may suit migrant workers, Indigenous Australians and/or people returning to the workforce after long absences. Providing complete documentary evidence may be difficult for some migrant workers, Indigenous workers, people returning to the workforce after absences and long-term employees who have learned all their skills on the job. In these situations, assessors may also need to support applicants to source alternative forms of evidence. Using positive approaches including using language that determines what clients can do, rather than focusing on the deficit approach of measuring what they cannot do, is desirable. Deficit approaches are to be avoided as they can create test-like conditions that promote anxiety and lowered self-assessment. Maintaining a positive approach that supports, acknowledges and values the skills and experiences of the applicant is crucial in any adult education exercise to build trust and comfort with the process and encourage active participation. Assessors need to be prepared to probe for further evidence if necessary, by using professional conversations to draw out evidence of, for example, abstract skills, which may be otherwise unnamed and overlooked. Without some coaching on the part of the assessor, some applicants may be unaware that the skills and experiences they have are relevant.

Peer support where feasible can be undertaken by conducting skills assessment in groups of a few employees, where peers can support each other with prompts and independent assessment of each other's skills and knowledge. Group assessment can also reduce costs and time taken and may be less confronting for some applicants than the potentially test-like scenario of a one-to-one assessment.

Assessors should have domain knowledge of the target industry to meet industry needs, and should also be familiar with their applicants' and clients' workplace language.

Inadequate Skills Recognition Practice

By contrast, skills recognition practices that are neither adequately understood nor undertaken (as referred to earlier in this chapter) can be identified by the following characteristics, many of which put the emphasis on the applicant, who is not a trained assessor, to do much of the work. This is unethical practice and will not lead to the best outcome for the applicant.

Requiring too much of the applicant is exemplified by activities including an expectation that the applicant map their own evidence to elements or performance criteria themselves instead of simply collecting evidence for the assessor to map.

Similarly, providing applicants with a self-assessment checklist that consists of units of competency, elements and performance criteria that they are required to interpret, instead of a more general approach that requires applicants to detail their education, licences that they have held, any volunteer work that they have undertaken, previous work experience and so on, is not good practice. It is the assessor who needs to interpret and map this information, not the applicant. While the evidence must be sufficient, requiring excessive evidence puts unrealistic demands on the applicant and unnecessarily increases the assessment workload and related time frame for both the applicant and the assessor.

Another indicator of poor practice would be requiring the applicant to compile evidence that is not consistent with the competencies detailed in the qualification, for example by asking an applicant to write an essay in relation to a Certificate II in Road Surfacing.

Dismissing the applicant by advising them that it is easier to 'just do the training again' than to apply for skills recognition is highly expedient and could damage the morale of an applicant who is very experienced and/or has previously undertaken the same training.

Supporting Assessors

Assessors also need support to maintain confidence in their professional judgements. They need supportive systems, tools and processes without excessive paperwork combined with the assistance of colleagues and managers, including opportunities

to consult with them on a regular basis. A skills recognition process that is embedded within the organisation's training and assessment and/or human resources business model to ensure that it is well understood and will become a mainstream organisational practice can demystify it for non-assessors and mitigate uninformed assumptions about it.

The provision of regular moderation activities between assessors as part of the quality assurance process and to ensure that assessors feel confident in the judgements that they make can reduce assessor stress and unease. Assessors also need the kind of support that is engendered by participating in a community of practice or formal teams of assessors, or by taking out membership of relevant professional bodies which provide ready access to the most recent information about assessment best practice and related legislation. Assessors need the support provided by sharing knowledge and experiences with other assessors (Davies et al. 2013).

Ensuring successful skills recognition is a three-way process: applicants need to understand the drivers and be supported through the process, assessor skills need to be developed continually to ensure their own confidence in their judgements and business needs must be understood.

Benefits for Employers

Confirmation or otherwise of competence is also a useful risk mitigation strategy. If competence is not confirmed, skills recognition assessments can also identify relevant training needs to ensure that employees have up-to-date skills and knowledge and can feel confident when doing their work. This same process will ensure that employees do not have to undertake training in areas in which they are already experienced and competent. This reduces the cost of unnecessary retraining and the on-costs of employee absences during training, and also ensures that that training is focused on developing new skills and competencies.

Skills recognition can also confirm that employees have the relevant certificates to comply with licensing and regulatory requirements and can also confirm the currency of licences and certificates held. Importantly, skills recognition assessments may also identify where a person may be suited to a different role that better fits with their skills, interest and ability; morale can be increased, absenteeism and 'presenteeism' are reduced and productivity is improved.

Benefits for Employees

There is considerable evidence that formally recognising the skills, knowledge and experience that people already have has a positive effect on employee morale. There is often a concern among older, more experienced workers who do not have formal qualifications that they may be usurped by tertiary and college qualified graduates,

about whose education they may feel suspect or resentful. Providing such employees with the possibility of gaining a recognised qualification can mitigate this problem. Related to this is the reduction of repeated training that employees have no interest in attending, as such demands demean their skills and experience. It can also reduce the time and cost taken to achieve a qualification. Clearly, there is a strong business case for skills recognition in organisations and a strong case for the successful application of these assessments to ensure that employees receive the benefits that can be gained from them.

Conclusion

In summary, it appears that the dilemmas that were acknowledged as inherent in some aspects of adult education in the previous century are still with us. Therefore it is useful to revisit the solutions that were examined in the 1990s and to ensure that the concerns of the individual educator and recipient of education are not buried in a cost–benefit analysis of employee productivity.

As Brockett (1990) recommended, we need to encourage and support a familiar but more current research agenda about the ethical use of skills recognition in workplaces. Current research can remind experienced practitioners of the recurring dilemma of education for economic imperatives versus that for socio-cultural benefit. New practitioners are also alerted to ethical issues in adult education, and will know how to access strategies that will ease their concerns, and which will also inform employees who have been encouraged to undertake skills recognition assessments what the drivers are.

Done transparently and undertaken well with a sound knowledge of how to process assessment applications wisely, and support the applicant, skills recognition can benefit both the employer and the employee while also meeting policy needs.

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Chapter 6

Recognition of the Skills and Knowledge of Indigenous Employees

Katie Maher

Abstract This chapter works towards recognising Indigenous employees as part of the Australian rail workforce and bringing attention to the skills and knowledge Indigenous Australians continue to contribute to the Australian rail industry. It draws on findings from interviews with rail industry employees and employers in corporate, operational and infrastructure roles in small, medium and large sized rail organisations across Australia. These interviews were carried out as part of a project on skills recognition in the rail industry funded by the Cooperative Research Centre for Rail Innovation. The chapter analyses how predominantly non-Indigenous employees and employers in the rail industry perceive equity and Indigenous capability, and the implications of such perceptions for recognising the skills and knowledge of Indigenous employees. It identifies a number of ‘problems’ with recognising the skills and knowledge of Indigenous employees. The analysis is informed by a historical examination of the views and actions of non-Indigenous ‘settlers’ towards Indigenous Australians, and consideration of how learning from history can assist us with understanding more equitable approaches to engagement among Indigenous and non-Indigenous Australians today.

Introduction

I don’t know of any Aboriginals in the railways. (customer service manager, quasi-public state rail corporation)

I’m giving the same information to everybody, so it’s got nothing to do . . . if you’re employed by us, because we have these standards, practice and procedures that we go through.

(trainer/assessor, large multinational rail contractor)

Indigenous people . . . are not given a fair chance to get through the processes.

(trainer/assessor, national freight rail corporation)

Over recent years, a number of rail corporations have developed strategies to promote engagement with Indigenous people and boost the access and retention rates of Indigenous employees, with varying degrees of success. In this chapter I attempt to contribute to these efforts by bringing attention to how certain views held within the

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rail workforce and certain standards and procedures upheld by rail corporations can impact upon recognition of Indigenous capabilities. I take the view that strengthening Indigenous employment and engagement requires recognition of the skills and knowledge that Aboriginal and Torres Strait Islander employees bring to and develop in the workplace.

I draw mainly on findings from interviews with sixty employees and employers from small, medium and large sized rail corporations in Australia (Maher 2012a; Morrison et al. 2012). These interviews were carried out as part of a project on skills recognition in the rail industry funded by the Cooperative Research Centre for Rail Innovation. To explore how recognition of learning and skills is viewed and practised in the rail industry, the research team interviewed managers, officers, trainers/assessors and service providers working in such areas as human resources, learning and development, and operations. As I was particularly interested in gaining a deeper understanding of concerns around equity and Indigenous employment, I also held discussions with rail representatives specifically involved in equity and diversity and Indigenous employment work in four rail companies, as well as collecting and analysing equity and diversity and Aboriginal employment strategy and policy documents from rail corporations.

Here I investigate a number of views put forward by rail corporation employers and employees and the implications of such views for recognition of the skills and knowledge of Indigenous applicants and employees. I am concerned with getting behind why it is that, despite stated commitments to improving employment outcomes (Boyle and Wallace 2011), Indigenous employees continue to face barriers to having their skills and knowledge recognised in the workplace (Kemmis et al. 2004; Dyson and Keating 2005; Eagles et al. 2005), the rail workplace being no exception (Maher 2012a.)

Within rail corporations, recognition of the learning and skills of the workforce has tended to be formally addressed through policies and processes known as ‘skills recognition’, ‘recognition of prior learning’ and ‘recognition of current competencies’. These processes, explored in more detail in Chap. 5, ‘may be used to map skills and knowledge gained through informal, non-formal and formal learning against defined competencies (or capabilities), generally toward a formal qualification’ (Maher et al. 2011: 3). Judgements and assessments about the skills and knowledge of employees are also made outside of formal recognition processes. In a workplace skills context, the capabilities of employees are viewed, assessed and appraised across workforce development processes including recruitment, assessment, training and performance management.

Research Methods and Analysis

Our interviews were semi-structured and broadly concerned with how recognition of skills and prior learning was viewed and practised in rail. Interview questions and discussions varied from interviewee to interviewee. While equity and race are cross-cutting issues that could emerge at any time during discussion, we also

specifically asked employees for their views on to what extent skills recognition processes were equitable; what if any difficulties Indigenous employees faced in having their skills and knowledge recognised; to what extent some people benefited from skills recognition more than others; and who missed out.

I use a critical discourse analytic approach that emphasises ‘language as a central and active force’ (Alvesson and Karreman 2011) to investigate the interview data. Workplaces are important sites for language use, spoken and written (Alvesson and Karreman 2011), visual and technological (Ahmed et al. 2006). When carrying out workplace duties such as recruitment processes, skills assessments and performance appraisals which involve recognising skills, knowledge and experience, people talk with colleagues, managers, subordinates and trainers/assessors. People also produce and refer to texts including job applications, assessment procedures, workplace policies, strategic plans, corporate standards and promotional material.

Critical discourse analysis presents applicable methods and a useful outlook for talking about and getting beneath the ways that skills, knowledge and experience are recognised as well as the ways equity and Indigeneity are represented through language. My analysis is also informed by critiques of negotiating workplace equity from Indigenous standpoints (Bunda et al. 2012, critiques of equity and diversity in the skills sector (Ahmed 2007; Ahmed et al. 2006), and reflection on how inquiry into the cultural and racial history of railway development might assist in addressing gaps in recognition (Maher 2012a; Prasad 1997; Norris 2006).

In my analysis of how recognition is viewed and practised in rail I have attempted to expose not only what was said, but what was not said, what issues were considered worth raising, and also what ideas and information were taken for granted or did not rate a mention. In the following discussion, I draw attention to a number of pertinent ‘problems’ around recognition of the skills and knowledge of Indigenous candidates that I identified during the analysis.

The Problem of Not Seeing Equity as a Problem

Interviewees from across roles and corporations indicated that all employees were given a fair chance in their company. Indigenous employees were not regarded as facing particular problems. One male human resources manager from a large public state passenger rail service, when asked if any equity issues arose, responded: ‘No, there’s no issues re equity groups and access to training and equal employment opportunity that come up.’

Another assumption was that, because skills recognition was designed to be equitable, then it must be equitable. One trainer/assessor from a registered training organisation involved in conducting skills recognition assessment in rail, when asked whether equity was much of an issue in skills recognition processes, replied:

I don’t think so, because that is what it was designed for. It was designed to give anyone obviously over a certain age and so forth, entry into a particular industry where they have had some experience in that industry previously but just not a formal qualification.

One employee from a large public state passenger rail organisation, when asked whether he thought anyone might be missing out on the benefits of skills recognition, commented: ‘I don’t really know, but it was alright, yeah, it was alright for me so I suppose it would be alright for everyone else too’.

When asked about risk and opportunities in recognising prior learning and skills, what makes a good assessor or what should be included in a skills recognition framework, equity or Indigenous engagement was rarely mentioned. With the exception of interviewees specifically working in the areas of equity and diversity or Indigenous employment, interviewees did not tend to raise equity concerns unless we specifically asked if there were any equity concerns and/or what those concerns might be.

Despite assumptions that equity was not a problem, I found that Indigenous candidates were more likely to miss out on having their skills and knowledge recognised and also more likely to experience limited access to and benefits from skills recognition processes. Interestingly, those few interviewees who were more experienced in working with and assessing Indigenous employees, and who came from companies that were more successful in employing and engaging Indigenous people, were also most likely to state that the capabilities of Indigenous candidates were not being as well recognised as they could be. To give one example, one non-Indigenous trainer/assessor who worked in a regional location with a relatively large number of Indigenous employees, when asked whether skills recognition was much of an issue for Indigenous workers, replied: ‘It certainly is, and that’s where the equity is just not here. We do have a lot of Indigenous people . . . and yeah, they are not given a fair chance to get through the processes.’

If the national freight company this employee worked with which employed ‘a lot of Indigenous people’ was not giving Indigenous employees ‘a fair chance to get through the processes’, then what sort of chance do Aboriginal people have in the many other rail companies with few or no Indigenous employees?

The Problem of Few or No Indigenous Employees

Figures for Aboriginal and Torres Strait Islander employees in Australian rail corporations vary across companies, ranging from zero to over 3 per cent. In most rail companies, the percentage of Indigenous employees remains comparatively low when compared with the percentage of Indigenous people nationally or in the areas where the rail company is operating.

Despite the promotion of Indigenous employment in rail over recent years, and despite the railways once being a major employer of Indigenous people (Maher 2012b,) many of the interviewees we spoke with, from both private and public, medium and small sized rail companies, stated there were no or few Indigenous employees in their companies. A learning and development manager from a multinational infrastructure contractor, when asked whether Indigenous employees faced difficulties with

recruitment and skills recognition processes responded: 'We don't actually have an Indigenous workforce, so if we do we're not actually aware of it.'

A customer service manager from a medium-sized state passenger rail company, when asked if there were Indigenous employees in the company, replied: 'No, we don't, not Indigenous I don't think, I don't know of any Aboriginals in the railways . . . I can't think of any.'

A trainer/assessor from a medium-sized public state passenger rail service, when asked if the company included Indigenous employees, replied: 'There's been certainly ones of different nationalities but I'm not sure about Indigenous. Yes, there was, yeah, there was, yeah, Torres Strait Islander is Indigenous, isn't it?'

A number of interviewees indicated that, as they had few or no Indigenous employees, they were not aware of Indigenous issues and recognising the skills and knowledge of Indigenous people was not relevant to them. Little if any consideration was given to the likelihood that low Indigenous employment is related to lack of attention to equity concerns, or insufficient recognition of Indigenous capabilities.

The Problem of Treating Everyone 'the Same'

Recognition of prior learning and skills processes were commonly understood to be 'fair' and equitable because people were treated 'the same'. A trainer/assessor from a large public state passenger rail company, for example, suggested: 'I'd say it's pretty well equitable across the board.' Another interviewee from a multinational infrastructure contractor, when asked whether everyone had the same opportunity to undergo skills recognition, replied: 'Yes, because I'm giving the same information to everybody.'

When asked whether all employees had the same opportunities to access skills recognition processes, a learning and development manager from a multinational infrastructure contractor replied: 'No, look there's opportunities. All our tradesmen are multi-skilled, you know, we have no demarcation at all, so equal opportunities, equal training, modules are delivered fairly.' One wonders, if all the tradesmen are multi-skilled, where are the women, and are Indigenous tradespeople accessing these opportunities? Many interviewees from across roles and companies put forward the view that Indigenous employees should work according to 'the same' standards and be treated 'the same' as non-Indigenous employees. What rail employees and employers tended to overlook in assuming that it was fair to treat everyone the same was the tendency for current standards and practices to be based on white Australian ways of doing and knowing, such that treating everyone 'the same' could mean expecting everyone to fit in with treatment that catered best to white Australian norms. Responses indicated limited awareness of the ways in which wider structural inequalities can disadvantage equity groups who are less familiar with mainstream practices.

A number of interviewees, however, indicated an awareness that ‘the same’ treatment was not necessarily equitable for Indigenous and other equity groups. Some companies, for example, have attempted to reduce recruitment barriers through setting up pre-employment or pre-apprenticeship programs for Indigenous applicants. A recruitment and assessment manager from a large passenger rail corporation provided the following description of the pre-employment program her corporation was offering to Indigenous apprentices:

We do specifically target the Aboriginal Indigenous community . . . We find that, because we do job-related testing, we find that that particular community have a lot of trouble getting through the testing, because they’re not used to a testing environment, so we run what’s called a pre-apprenticeship campaign, and so we work with them to get them comfortable using tests and practising tests . . . so that’s been quite successful in the past.

While targeted pre-employment programs, developed in consultation with experienced Indigenous trainers, can be useful to Indigenous applicants who are less familiar and less comfortable with standard testing, it would be erroneous to expect that all Indigenous candidates require extra assistance. The Maughan (2009) for example, noted how one rail corporation set up a pre-apprenticeship program because Indigenous people were not applying for apprenticeships and traineeships. Rather than recognising the many possible reasons why Indigenous peoples were not applying, it was assumed that ‘local Indigenous people were either not interested in applying for positions or thought they would not be able to pass the initial selection process’ (Maughan 2009: 8). The company found however that many Indigenous applicants gained apprenticeships outright and did not require the pre-apprenticeship program. Not all Indigenous people are ‘the same’. Indigenous Australians, like non-Indigenous Australians, differ in terms of education levels and job-seeking experience. My research findings also indicated problems with assuming Indigenous candidates should not be treated the same, or presuming that all Indigenous people require different treatment and special assistance. Indigenous employment strategies work best when based on recognition of Indigenous capability, rather than being based on the assumption that Indigenous candidates in general lack knowledge and skills.

The Problem with the ‘Rail Language’

One learning and development officer from a state passenger rail corporation, when asked whether the language used in skills recognition might be problematic for some employees, replied:

It possibly could be but I’ve not come across it yet.
Yeah, right.
 Because we work on the rail language here!!
A language unto its own!!
 And we have our own language, so yes.

Like many others working in learning and development and/or training and assessment in rail, this learning and development officer indicated a perception that the 'rail language' was neutral and fair. Comments from other interviews have however indicated that 'the rail language' is not without its equity issues. An external trainer and assessor from a quasi-public national infrastructure company noted that he found it difficult to assess the competencies of some Indigenous employees fairly. He acknowledged how his communication skills could impact upon skills recognition for Indigenous and culturally and linguistically diverse employees:

Some of them had a hard time proving to me that they had [skills and experience] . . . Could be cultural differences, maybe I missed some of their subtle movements that I didn't pick up, but yeah I did have a hard time trying to get it out of some of them.

The research indicated a lack of confidence or expertise in engaging with Indigenous employees among some employers and employees in some companies, suggesting that miscommunication could obstruct effective skills recognition. A learning quality and accreditation manager from a large state passenger rail and infrastructure company observed that one risk with skills assessment in rail is that

We might not have the people in-house that have that background knowledge and understanding to recognise those skills in others or we might employ people to do that who have that background knowledge, for instance an external provider. I would see that as a risk, that there might be some misalignment between the worker's skills they are demonstrating and the perception of what those skills are.

An employee from one state rail company voiced concern that none of the people involved in recruitment, assessment and training were Indigenous. This interviewee felt that there was a need to appoint a suitably experienced Indigenous employment and engagement manager, but as there were relatively few Indigenous employees the company was not prepared to cover the cost of employing an Indigenous person in such a role.

The 'rail language' currently operates in accordance with the system of competency-based assessment and training packages now in use. The study found instances in which 'competence' was viewed as clear cut, with little or no room for flexibility around equity concerns, and an assumption that if employees are expected to achieve the same standard of 'competence' then the same process must be used to achieve this. For example, one learning and development manager from a Registered Training Organisation was asked whether her organisation had assessed Indigenous candidates. She replied that they 'did about 30 of their guys' the previous year. When asked whether that process worked any differently she replied: 'No, it can't. They have to be competent, it doesn't matter what background or race or gender or any of that, it's purely competent or not competent.'

Based on my research, I suggest that such a view of competence is problematic. It leaves no room to consider the problems that competency-based assessment brings with it, including lack of emphasis on underpinning knowledge, lack of trainer capability and reduced flexibility (Smith 2010, p 63), which could disadvantage Indigenous candidates.

The rail language is also increasingly a language of marketisation. Privatisation of rail brings with it concerns around the need to meet commitment to market values. While that commitment to market values has not necessarily meant that equity concerns are cast aside, it has led to the ‘softening’ and the rearticulation of the meaning of equity (Rizvi and Lingard 2011) and related notions of race equality and justice for Indigenous Australians in the workplace. When conflicts between equity and the market arise, equity tends to be redefined to reduce the tension between the two. The commitment to the market however remains intact, retaining the legitimacy of corporate objectives of economic profit and accountability.

The ‘rail language’ prefers not to voice concerns such as ‘discrimination’. The literature on equity and diversity in the workplace has pointed to how words such as ‘racism’ and ‘rights’ are being replaced with softer notions of equity and diversity (Ahmed 2007). These softer terms can lead to the assumption that people are different but equal. As one customer service manager from a state passenger rail corporation replied when asked whether there were Indigenous employees in his company: ‘I can’t think of any, not in [my area]. There may be. I know there’s Indians, and there seems to be everyone else of nice cultural diversity. We’ve got Islanders, New Zealanders and Samoans, some Indians, yeah.’

Consider also the following comment from a human resources manager from a large public state passenger rail service:

There’s been a lot of good initiatives implemented to make sure that our recruitment practices and facilities, etc., are accessible to different equity groups, so whilst there may have been some issues, I understand that basically, in terms of recruitment and training, that’s pretty much been addressed now.

Indigenous employment strategies, too, have tended to work with softer notions of equity, promoting friendly images of Indigenous and non-Indigenous people working together. When Indigenous employment strategies are promoted, this can give the misleading impression that equity and Indigenous engagement are now addressed, with the risk that the ongoing difficulties experienced by Indigenous applicants and employees are overlooked.

One of the key strategies being employed to promote Indigenous employment and engagement was ‘cultural awareness training’. One trainer/assessor from a medium-sized state passenger rail corporation, when asked if any particular issues had arisen with Indigenous employees, responded:

Look, there’s no Indigenous issue here. I think actually in the new package . . . we’re going to include like an Indigenous Aboriginal awareness area in our induction process, so we’ve never had that before but now because [the government department we have merged with] do have it, we’re going to incorporate a lot of their induction kind of . . . but there’s no Indigenous issue here, if you know what I mean.

My research findings, however, suggest a need to be cautious about seeing workshops and training as the answer, and to be aware of the limitations of training in terms of solving equity problems. Indeed, the interview data suggest that there was a particular tendency to roll out training as an apparent means of resolving a range of workforce development concerns. One learning and development manager from a

large passenger rail corporation noted how her workplace had repeatedly responded to an ongoing problem of workplace disrespect and misconduct through training. She pointed out that solving this problem indeed required more than retraining:

It's quite difficult sometimes like you'll have to convince managers that training isn't the solution . . . Because there has been a couple of incidents, like we're currently training in . . . how not to bully or bait a worker in the workplace because it's a really significant problem and it's actually the third time people have been through this training. And they're still, and they're still . . . and it's still happening so they do the training again. I mean how ridiculous is that? And expensive!

The Problem of Standard Procedures

One interviewee from a multinational infrastructure contractor, when asked whether everyone had the same opportunity to undergo skills recognition replied:

Yes, because I'm giving the same information to everybody, so it's got nothing to do . . . if you're employed by us, because we have these standards, practice and procedures that we go through . . . You are going to come into our system and you are going to go across these hurdles, and it doesn't matter who you are.

The assumption is that the standards, practices and procedures are fair, and that if everyone goes through the same process then that is fair. But whose standards are these and how well do they fit Indigenous ways of being, knowing and doing?

Some interviewees noted that requirements for written forms of assessment and standards around what constitutes acceptable evidence of skills and experience were barriers to some Indigenous candidates gaining recognition of their capabilities. Several interviewees indicated that Indigenous employees could face barriers in applying for internal positions and getting through the processes that enable promotion to higher level positions. One Indigenous customer service employee from a state passenger rail organisation explained how the completion of excessive paperwork was a requirement for applying for a more senior position. While she was confident in her ability to take on a more senior role, she was discouraged by the application process. As Constable et al. (2004) explain, candidates may name their capabilities in:

Culturally specific ways that do not necessarily lend themselves to be used in job application processes . . . Consequently, these skills, qualifications and experience remain unrecognised and are lost to the labour market, and individuals are often forced to work below their level of skills and expertise with the attending social and psychological effects. (2004, p 13)

A trainer/assessor from a large private national freight company commented on how the push to get through standard assessment processes means some applicants miss out:

We've got time frames where we are pushed to get as many people assessed as possible and move to the next person, and the person that can't get it there, he gets left behind and has to get mentored more and more down the track, which happens in the game, and sometimes

that doesn't happen either, and they decide then that training is not for them, and they fall out.

Interviewees from a number of rail companies noted how current testing and recruitment procedures could be a barrier to potentially competent candidates, Indigenous and non-Indigenous, entering the industry. The responses of some interviewees suggested, however, a lack of awareness of the ways in which standard procedures might fail to recognise the skills and experience of Indigenous candidates. One train driver trainer/assessor when asked if there might be some employees, such as Indigenous employees in the company, who experienced difficulties having their skills recognised, replied: 'Not within the area that I work within the company, it's very dry, very black and white.' He then proceeded to explain this 'black and white' process:

The job ad goes out in the papers, it goes out online, people apply and have a short 10–15 questions that they have to answer... If they satisfy that criteria, I'm not quite sure how the criteria works... because that's run by an outside company... then you come and do a larger questionnaire. There's four or five areas, numeracy, problem solving, literacy, that they're tested on. That is done online, the results are sent away electronically, you then are placed on a merit list... then you go to an assessment centre day. On that assessment centre day, you have an interview one-on-one, one-on-two... you answer six questions over an hour, and you do manual dexterity, numeracy, literacy, some type of problem-solving tests as well... and that, combined with your interview, creates your final score, and from there if you achieve a certain level you are then elevated onto a waiting list based upon the merit of each assessment centre day.

The above process would appear to require being comfortable with and competent in a range of job-seeking and testing skills that may have little to do with the actual skills required to perform the job. Such recruitment skills include meeting the recruitment, interviewing and testing standards of both the rail company and the company that oversees the online testing process, which are likely to be oriented towards non-Indigenous, native-English-speaking men. An applicant might, for example, be a competent problem solver, and yet perform badly due to being uncomfortable with sitting such a test. When asked whether they employ Indigenous people, the training and assessment manager from one freight company replied, 'They just don't pass, they just don't get past the psychometric testing, they just don't make it unfortunately.'

An equity and diversity representative from a state passenger rail corporation also voiced the view that psychometric testing blocked many applicants, Indigenous and non-Indigenous, who were potentially capable of performing train driving roles but not comfortable with testing procedures.

A learning and development manager from a large national freight operator, who noted how standard assessment practice in the rail industry could prevent some Indigenous employees from gaining skills recognition, suggested that rail should learn from industries that use more flexible, non-paper-based approaches:

One of the major barriers is... the limited knowledge of how you can do this process even though numeracy and literacy is a problem. An example I give is that, if you once again look at other industries, people don't always have to answer questions in a written way. People don't always have to read a question, you can ask a person a question and that person can demonstrate quite clearly that they have the knowledge, then you should recognise it.

One human resources manager from a large public state passenger rail service, for example, commented on the perceived fairness of the corporation's recruitment process:

In terms of the type of work that my team did, I think that you could safely say that we don't differentiate on the basis of someone's background in any way whatsoever, because we're only really looking at their history, their training history particularly, and what was in that training, and then applying that, so it's actually quite objective in that regard.

It is interesting here that history, or rather 'training history', is regarded as objective. How recognised and valued is Indigenous knowledge and experience within this 'history'?

Light et al. (2011) noted that white employers tend to be more likely to believe that structures are equitable when formal procedures are in place. Their scholarship helps to articulate how so-called meritocratic processes can actually operate in accordance with the interests of white ways of being. They claimed such employers have 'increasingly accepted the idea that all should be evaluated and treated on meritocratic grounds (Schuman et al. 1997) . . . incorporating bureaucratic structures and procedures that lend themselves, on the face of it, to race neutral hiring and promotion practices' (2011, p 40). While they are based in North America, the authors' insights are relevant to Australian contexts. They explained how managers and employers can engage in a 'legitimising discourse' in which formal procedures become 'an institutionalized cloak for ongoing ascriptive bias' in which managers, employers and assessors 'exchange symbols of meritocracy for equality' while remaining reticent to acknowledge potential structural and historical impediments that minority groups face. 'Consequently, meritocracy remains a key cultural justification for inequality . . . while the effects of continued racial bias often go unacknowledged' (Light et al. 2011, pp 42–43).

Such processes become part of and facilitated by organisational and corporate processes. Having formal structures in place can lead employers and employees mistakenly to assume that such structures are unbiased. This can lead to assumptions that differences in outcomes are due to differences in merit, whereas in fact they may be due to differences arising from ascriptive racial bias inherent within the structures themselves (Light et al. 2011).

Contemporary corporations carry a set of moral values that can impact upon the value judgements made in recruitment, workplace assessment and performance development processes, such that the experience, skills and knowledge of Indigenous people can be regarded as deficient or inappropriate in certain ways. A strong sense of community responsibility could, for example, be 'an enduring source of cultural tension in organisations that are primarily structured to endorse individual decision making and accountability' (Prasad 1997, p 140).

My research results suggest that a deficit view of Indigenous capability remains in many rail corporations. The 'problem' of Indigenous employment is seen as a problem resting with Indigenous people, rather than a problem inherent in the attitudes and structures of the workplace.

The Problem of Having to ‘Blend In’

There was a widely held view among rail employees and employers that the industry was dominated by relatively conservative older men. Numerous interviewees described rail as an ‘old boys club’. But there were few comments from those interviewed in this study on the racial/ethnic imbalance in the rail industry. The whiteness of the industry appeared to be largely taken for granted by the predominantly white employees and employers consulted.

A number of interviewees implied that Indigenous employees should make the effort to ‘blend in’ to the workplace rather than the workplace reorienting its structures and approaches in accord with the values and practices of culturally diverse and Indigenous peoples. A number of interviewees inferred that Indigenous and non-white employees need to assimilate to white Australian ways of being and doing. This was suggested, for example, in this comment from an operations manager from a medium-sized state passenger rail service: ‘If you want to do this job, you do it the same as them.’ There was limited recognition of the entitlements of Indigenous and culturally diverse peoples to have their own views and practices recognised. There was little recognition of the agency of culturally diverse employees and their contributions to the rail industry.

Some rail representatives also presented themselves as altruistic in allowing Indigenous and culturally and linguistically diverse employees in, and in helping others to blend in. One trainer/assessor from a Registered Training Organisation commented on how (white) Australians ‘are almost happy to teach *them* (people of different cultures) to *blend in*’.

My research indicated limits to the degree to which organisations made allowances for family and cultural situations that were not a convenient fit with work priorities. One learning and development manager from a small freight company explained that one of the few women employees in the company had experienced difficulties ‘blending in’ at work:

there was always some altercation out there occurring because someone restricted her rights, or she had to take the call from the kids, or she had to go back home, you know, because the kids were sick. So there was a lot of issues, and I must say that [our company] did everything that they could to kind of bend, and to accommodate her . . . and to a certain degree, you’ve got to blend in with the workplace, I mean you’ve got to try and work in with people.

Consultations and interviews suggested that the expectation put upon Indigenous employees to ‘blend in’ with the workplace could at times conflict with family responsibilities and cultural obligations. One Indigenous employee consulted, for example, spoke about how important it was to attend family and community events such as funerals, and yet the workplace was not always supportive and understanding about Indigenous employees taking leave on such occasions. One equity and diversity officer noted how Indigenous employees could, and did, end up leaving due to family commitments that conflicted with work commitments.

The notion of ‘cultural imprinting’ (Prasad 1997; Stinchcombe 1965) is useful in understanding how the notion of ‘fit’ has developed within organisations. Cultural imprinting is concerned with:

how certain social and cultural conditions became reflected or imprinted in an organisation’s formal and informal functioning, and then became taken for granted as they were institutionalized in the organisation’s routine practices . . . these cultural imprints, have far-reaching consequences for many dimensions of organisational life, in particular, for the way in which cultural and demographic differences are received in the workplace. (Prasad 1997, p 132)

Cultural imprints such as an individualist sense of competition, self-assertiveness, a preference for rationality and objectivity, and a prioritising of work over family interests have become embedded within the standard organisational practices and taken-for-granted views of corporations (Prasad 1997). The cultural imprints embedded in Australian rail corporations reflect preferences and views with which white Australian men are most comfortable. These preferences then work to shape and define corporate notions of ‘good’ work, appropriate workplace conduct and professional competence. Such cultural imprints determine who does and does not ‘fit in’ with accepted ways of being, knowing and doing in the workplace. Consequently they can perpetuate the ruling out of those whose cultural values conflict with corporate standards. Traditional Indigenous cultural values around family, community and connections are unlikely to sit comfortably with such notions of ‘good’ work. As Prasad has pointed out, families ‘have no place within the structure and discourse of contemporary organisations, which frequently treat emotional attachments to families as unwelcome distractions from work’ (1997, pp 138–139).

The ‘unwelcome distraction’ of family is, for many Indigenous candidates, of prime importance. Despite statements about commitment and strategies to support Indigenous engagement and diversity in the workplace, a competitive, individualistic and tough-minded workplace culture can leave little space for accepting community and collective notions of work, or for expressing and performing different notions of work and career. A workplace that is truly inclusive and engaging of Indigenous culture would, however, be a space where family and community is respected and valued.

Perceptions about Skills Levels

Interview data and annual reports from rail companies that have employees identified as Indigenous indicated that these employees are still mostly concentrated in lower paid, ‘low grade’ positions. It does not necessarily follow, however, that Indigenous employees lack skills and knowledge. When asked about his view on how rail should take Indigenous employment into account, one industry expert commented:

It’s hard to say. The job roles in themselves, well certainly in the infrastructure side of things, the job roles tend to be the most common job roles of the track workers, so it’s very much an outdoor, very, fairly physical activity, but it does involve quite a lot of machinery and so on. To me it’s actually a really good role for people from Indigenous backgrounds to get

into the workforce, because it doesn't initially need an awful lot of higher-level application in terms of knowledge. It involves physical skills which can be achieved. It doesn't work in the normal work hours, it's shift work, it moves around, and it's flexible. If people have got the skills they can actually move around with those skills.

The view expressed above suggested that Indigenous employees come to the industry with limited skills and that jobs that require 'higher level application' may be less suited to Indigenous employees. Indigenous applicants often do enter rail at this level, some with limited formal education and training, and the interviewer acknowledges that the railways can offer 'really good roles' for Indigenous employees, where workers can achieve skills and 'move around with those skills'. While not disregarding the value of allowing space for Indigenous applicants to take on entry-level roles, the educated, skilled and experienced Indigenous workers in and outside of rail also deserve recognition. It could be limiting to assume that 'higher level application' is less appropriate for Indigenous employees. Among the Indigenous employees currently working in rail, many were in entry-level infrastructure roles and customer service roles but there were Indigenous people working in other roles such as train drivers and guards, station managers, signallers, electricians, engineers and as managers of contracting companies engaged in rail work.

Not all Indigenous employees entering rail workplaces are afforded the opportunity to 'move around with' their skills. Research consultations suggested that, past the recruitment stage, the capability of Indigenous employees may be undervalued such that they are placed in roles that do not make the best use of their skills. A manager of an Indigenous contracting company, for example, explained how a number of Indigenous construction trainees had gained work with a rail contracting company. The trainees were, however, given monotonous tasks that required very little skill. These trainees, initially very keen to work in roles that made use of their skills and which provided opportunities for further skills development, were dissatisfied with this dull and repetitive work.

Findings from interviews, policy documents and the literature suggest that many involved in recruitment and learning and development in the rail industry tend to regard Indigenous applicants and employees as low skilled and in need of extra support and supervision. As one operations manager from a medium-sized state passenger rail company replied, when asked whether the Indigenous drivers he worked with had any particular needs in terms of learning and skills recognition, 'They're learning skills, you've got to assist them more, other than that no. Actually we've got some very good ones, yeah, Aboriginal people, very motivated and out there.'

Here the assumption is that Indigenous employees need to develop skills, and need more assistance to develop required skills. But this may not be the case. Perhaps if these Aboriginal employees regarded as needing extra assistance were managed by a suitably experienced Indigenous manager they would work well without extra assistance. As this study has found however, Indigenous employees continue to face barriers to obtaining management and senior level roles in rail, and consequently are likely to miss out on the supervision and support of Aboriginal leaders and managers.

Non-Indigenous Australian policy makers and employers have for many decades put forward the view that Indigenous Australians require assistance (Norris 2006).

This is despite evidence that, given respect and recognition, Indigenous employees can perform as well as non-Indigenous employees without special assistance or supervision. McGinness (1966) for example, in 'Aborigines and Northern Development—An Aboriginal View', provided numerous examples from Aboriginal workers employed in mining and construction companies to demonstrate that 'the Aboriginal worker, under proper conditions, can be as satisfactory as any other' (1966, p 276). Lui-Chivizhe (2011) has recalled how her Uncles were among the many Torres Strait Islander railway workers to outperform all other workers, demonstrating remarkable engineering feats and still holding the world record in heavy haul track laying. Indeed, Aboriginal and Torres Strait Islander peoples have, for many generations, demonstrated their capacity to perform 'as well as any other' across a range of roles in rail, including as train drivers, inspectors, head gangers and railway company managers, when given proper conditions (Maher 2012b). And where the railways have not satisfied their aspirations, other former railway workers such as Charles Perkins, Patrick Dodson and Eddie Mabo have left the railways and demonstrated their capabilities in other sectors. Yet the contributions and achievements of Indigenous railway workers remain largely unknown. As Norris (2010) has shown, workplaces have neglected to learn from history and mistaken assumptions continue to be made that Aboriginal people lack skills and aptitude.

According to Norris, 'No studies have actually examined the level and nature of skills held by Indigenous people, but claims are consistently made that the reason for Aboriginal lack of employment is their lack of skill' (2010, p 180). Furthermore, when Indigenous applicants do gain employment, assumptions about lack of capability can lead to Indigenous employees being placed in roles that do not make the best use of their skills, knowledge and experience and which discourage retention.

Norris' work on Indigenous employment disadvantage points to a 'continuing lack of respect for Aboriginal culture, people, perspectives and skills . . . which then becomes a reason for confining Aboriginal people to low skill, low paid jobs on reduced pay and conditions' (2006, p 243). Norris has suggested that behind this concentration in low skilled positions is a belief that Indigenous peoples 'lack the requisite skills to occupy a higher proportion of skilled positions in the workforce' and an avoidance of the likely explanation 'that only low skilled jobs are generally available' (2010, p 180).

Indigenous employment in rail has tended to be promoted at the trainee and entry level and in infrastructure and customer service roles, with limited efforts to promote and celebrate the achievements of Indigenous employers and employees in management, leadership and skilled positions. Indigenous Australian approaches to leadership and management are likely to be shaped by different values and experiences to those of white Australians. Indigenous employment and engagement strategies, when in place, have not necessarily been incorporated into leadership and management development. Undervaluing of Indigenous management capacity, along with mismatch between conventional western approaches to management development and Indigenous values around management and leadership, helps to explain why rail corporations are reluctant to recognise the leadership and management capacities of Indigenous employees. Cultural imprints have influenced management

and leadership, leading them to value and perpetuate individualistic, tough-minded approaches (Prasad 1997, p 139). If corporations were committed to respect for Indigenous peoples and cultures, then the values and practices of Indigenous people, including management and leadership values and practices, would fit in with the expectations of corporate management.

The Problem of the Neglect of History

Australia has a multigenerational history, continuing into the present, of representing Indigenous peoples as lacking in skills and knowledge. One example of this comes from an advertisement for a provider of ‘capability development’ to railway companies, published in a recent issue of a prominent Australian rail magazine. As the intention here is not to target any given companies, but rather to expose some of the views and assumptions of contemporary rail corporations more generally, the company who generated this image is not named. The advertisement shows a stereotypical image of a Native American man lying across the railway tracks with his ear to the ground and a speech bubble stating that a ‘heap big iron horse’ is on its way. The stereotypical phrase ‘heap big’ has historically been used by Europeans to disparage Native Americans knowledge and language skills (Meek, 2006). The message of this image is supported by the wording of the advertisement which states that railway communication and control systems have failed to advance into the 21st century. The portrayal of a First Nations person in the advertisement is presumably intended to portray a lack of advanced knowledge of the railways and primitive methods of communication. The image says more about non-Indigenous myth than it does about Indigenous peoples.

Despite the important role Indigenous peoples have played in building the railways, not only in Australia but also in America and other parts of the world, Indigenous people have been represented as fixed in a distant past, failing to progress since the time when the first tracks were laid, and lacking in the knowledge, experience, skills and language required of a contemporary rail corporation. It exposes what might be referred to as the ‘frontier myth’, which continues to shape ideas about the knowledge and standing of Indigenous people today. It brings attention to the values and assumptions underlying rail corporations and calls for a cultural and historical examination of how the skills and knowledge of First Nations peoples—the very peoples upon whose land the railways have been built over and continue to operate across—continue to be undervalued and misrepresented. According to Norris:

Analysis of history shows that everything that was done to Aborigines from the early nineteenth century into the late twentieth was based on continuing beliefs about: Aboriginal inferiority; Aboriginal incapacity and irresponsibility; The need for white intervention; and Disregard for Aboriginal understandings, values, choices. (2008: 7)

Such assumptions remain inherent in Indigenous workplace strategies today. As Prasad has contended,

the mythologies of the frontier have left lasting cultural imprints on the structure and functioning of current organisations . . . the values inherent to these ideologies pervade and shape countless organisational practices in such fundamental and taken for granted ways that they remain largely unquestioned and invisible. (1997: 138).

The work of Prasad (1997), while written from a North American perspective, is also relevant to Australian contexts and helps to show how certain ‘mythologies’ have shaped the way corporations are structured and continue to direct workplace practices today. In both Australia and North America the railways played a central role in movements of economic expansion involving the conquest of new territory along with discourses to ‘justify’ and legitimate this conquest of the lands of First Nations people and celebrate its gains (Prasad 1997: 130).

Prasad (1997) has brought attention to how discourses such as the ‘frontier myth’ eventually become manifest in organisational structures. Some myths may be concealed within regulations and standards, corporate strategies and credentialising systems. As Prasad pointed out, organisational structures continue to be shaped by an aggressive pursuit of goals and an individualistic and detached rationality. Prasad (1997) has suggested that examining historic binds and underlying cultural beliefs and standards can teach us important lessons about the ways in which we engage with race relations and equity. A historical approach can help reveal ‘how fundamental taken for granted assumptions in organisations are products of specific mythological moments and are therefore open to change’ (Prasad 1997: 144). Such an analysis can reveal how corporate values such as individualism and competitiveness are not in themselves ‘good’ or ‘productive’ but rather are ‘reified cultural imprints of earlier ideologies. This in turn suggests that a whole spectrum of alternative values and cultural codes may be more relevant to organisations that operate in increasingly multicultural societies’ (Prasad 1997: 144).

It follows, therefore, that contemporary Australian rail corporations could be structured in more culturally relevant ways. However, many of the discourses and practices are maintained by the highly standardised and officious character of rail.

Conclusion

In this chapter I have identified a number of assumptions held by rail employees and employers and located some of the myths inherent in corporate structures and practices. I have studied how such views can impact upon recognition of the capabilities of Indigenous employees. I have examined how non-Indigenous Australians have viewed and acted towards Indigenous peoples historically to bring attention to the fact that much of what is manifest in workforce views and structures, and seen as objective organisational practice, is the remnants of underlying cultural beliefs and standards that do not support equitable recognition of the skills and knowledge of Indigenous people.

Being serious about recognising the capabilities of Indigenous peoples requires ensuring that the existing knowledge and skills of Indigenous Australians are recognised and valued. It also requires ensuring that all jobs are open to Indigenous people, including leadership positions, management and skilled roles. Indigenous employment equity will not be achieved while assumptions of Indigenous incapacity, which work against the goals of Indigenous equity, remain among the workforce and within its standards and systems. Clearly, Indigenous employment is not yet ‘done’.

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Chapter 7

Women and Engineering: A Workforce Development Issue

Michelle Wallace and Neroli Sheldon

Abstract Engineers are critical to the economic innovation and productivity of nations through the production of knowledge, patents and technology as well as by driving sustainable social and economic development. However there is a growing worldwide scarcity in almost all engineering fields and, while the career is generally well-remunerated with good career prospects, there is an under-representation of women studying or working in engineering roles. This chapter discusses the role of early socialisation, schooling and university education in contributing to the low levels of girls participating in the science, technology, engineering and maths (STEM) subjects needed to study engineering and the gender disparity in engineering courses as well as the leaky pipeline of qualified women in the engineering profession. The chapter also describes a range of initiatives that attempt to address these issues that have resulted in skills wastage and engineering skills shortages in most countries.

Introduction

Engineering expertise is critical to the economic innovation and productivity of nations through the production of knowledge, patents and technology. In a global economy engineering is also critical in driving sustainable social and economic development in both developed and developing nations. Given the ‘greying’ of current workforces and increased technological demands of contemporary economies, securing a pipeline of qualified engineers is critical to continued development (UNESCO 2010). However, there is a growing, worldwide scarcity in almost all engineering fields. The current pipelines of those qualified in science, technology, engineering and mathematics (STEM) are not considered adequate to meet future demands for qualified engineers and related professionals (UNESCO 2010).

Changes in global demographics and advances in information and communication technologies have led to changes in the dynamics and supply and demand of STEM

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talent. On the supply side, the source of STEM talent is predicted to come from emerging economies in Asia, Eastern Europe, Latin America, India and China (Lewin and Zhong 2013). On the demand side demographics including the ageing population and structural changes in labour markets have led to a steady decline in young people electing to take on STEM careers (Lewin and Zhong 2013).

Furthermore, in the USA labour force predictions to 2018 suggest that nine out of ten of the fastest growing occupations will require, minimally, a STEM-related bachelor's degree (National Science Board 2010). Some of the largest increases will be in those jobs requiring engineering degrees (National Science Board 2010). Attracting those with an interest in pursuing an engineering career and developing their talent are both labour market and workforce development issues.

Engineering offers generally well-remunerated careers with good employment prospects. However, in addition to an insufficient supply there is also an under-representation of women studying engineering and related courses in many Organization for Economic Cooperation and Development (OECD) countries and also an uneven pattern of female participation in engineering courses and jobs across the world, with English-speaking nations evidencing some of the lowest participation rates. Overall, engineering remains a career where occupational gender segregation continues to be evident and the lower participation of women in engineering is of concern for several reasons.

First, developing and using the talents and skills of all adults eligible to be members of a workforce enhances the gross domestic product of a country (Hill et al. 2010). Barriers to women entering engineering and related fields reinforce a brain drain that countries can ill afford. The world shortage of engineering and technology graduates is likely to be only marginally met by men; increased female participation is most likely to contribute to the large increase needed (OECD 2012).

Second, a more diverse workforce reflects the composition of the broader society and can better appreciate and cater to the needs of all end users, avoiding potential mistakes. For example, early voice recognition software was calibrated to male voices so women's voices were not heard thus hindering adoption of the software, while a predominantly male group of engineers designed the first airbags tailored to adult male bodies, resulting in avoidable deaths of women and children (Schiebinger and Schraudner 2011). With a workforce more representative of the whole population, scientific and technological products, services and solutions are likely to be better designed and effective for all people.

Third, in terms of human rights, women's participation across the occupational categories contributes to gender pay equity and enhances the socioeconomic position of women and their dependents (Didier 2012). Society thus needs a broad pipeline of women engineers, inventors and technologists yet their participation in these fields is patchy across countries. The supply pipeline commences with early socialisation and schooling and continues through the secondary and non-compulsory years of schooling. However, it is in universities that engineers are made and workplaces where they are developed and gain experience.

In this chapter we offer a snapshot of the position of women in engineering internationally and in Australia. Our analysis is informed by the liberal feminist

theoretical perspective of ‘adding women and stirring’ where barriers to participation of additional numbers of women are diminished. However, we also embrace a transformative approach influenced by feminist critical theory. We explore the literature on schooling and gender socialisation that might explain the small number of women entering the engineering profession and question the ‘pipeline’ argument, which asserts that the numbers of women in engineering will grow as a consequence of higher educational levels for girls and women. We argue that not only is the pipeline leaking but it is quite narrow in many countries to begin with. We examine recent research in Europe, the Americas and Australia on women’s participation in engineering higher education and the workplace experiences of those women who do become engineers. Finally, we suggest educational, social and workplace culture strategies to attract women to and, very importantly, retain them in engineering jobs.

The Global Picture

In 2010 UNESCO produced the first international report on engineering. This landmark report was produced in conjunction with the World Federation of Engineering Organisations, the International Council of Academies of Engineering and Technological Sciences, and the International Federation of Consulting Engineers. While statistical information is unavailable for some of the world’s principal regional economies a number of global trends were noted in the report. The overall tendency of the countries covered by the study showed that, although enrolments in engineering courses have increased in absolute terms over the last decade, they are in decline when compared to total enrolments. The report also indicated that, while enrolments of female engineering students are increasing more quickly than those of men, the proportions are still low in most countries and very low in some countries. In fact, almost all countries reported an under-representation of women. Efforts in the 1980s and 1990s increased enrolments of women in science and engineering courses from an average of 10–15 % to 20 % and above in some countries. However, enrolments since 2000 have declined back to 10 % in some countries and in several countries such as Japan there are very few women studying engineering (UNESCO 2010).

There is an uneven global representation of women in engineering as can be seen in Table 7.1.

It should be noted that definitions of engineering as a discipline vary across countries. In the UK statistics on women’s participation in engineering includes construction (Bagilhole 2012) and in some countries architecture is considered part of engineering. In the USA, STEM undergraduate degrees include the social sciences (Rosser 2012) but in other countries such as Australia they do not. While this is a limitation for comparison, trends are still quite apparent.

Table 7.1 Women in the engineering workforce by selected countries. (Sources: Bagilhole 2012; Kaspura 2012; Kiwana et al. 2011; OECD 2009; ParisTech Review 2010)

Country	Female participation (%)
China	40
Russia	40
Latvia	30
Bulgaria	29
Cyprus	28
Sweden	25
Turkey	21
Italy	19
Ireland	14
USA	11
Australia	10
UK	8.7

The Australian Context

There is worldwide and Australia-specific competition for engineers. At a global level, skilled tradespersons, engineering and maintenance technicians and engineers rank first, third and fourth in the list of ten jobs experiencing the greatest skills shortages (Manpower 2009). Many industries that employ large numbers of engineering graduates such as transport and construction are in a growth phase in Australia. However, reports from some industries such as rail indicate that the industry is not attracting sufficient entry-level and mid-career engineers and skilled technicians from within the Australian labour market and is facing widespread retirements from an ageing workforce (Australasian Railway Association and DEEWR 2007). Engineers Australia (2009) has estimated that only half of the engineering retirements can be replaced by Australian university graduates. There is an active, national, skilled migration program that lists almost all engineering and engineering technologist positions as in demand. The July 2012 revision of the Skilled Occupations List (Department of Immigration and Citizenship 2012) lists at least twenty engineering categories as in demand.

Recent statistics also indicate that 62.6 % of qualified male engineers were currently working in engineering compared to 43.2 % of qualified women (Kaspura 2012). Manufacturing and the consulting industry employed over 40 % of these engineers, with public administration (including defence) employing 9 %, construction 7 %, transport 6 % and mining 3.5 % (Kaspura 2012). The average age for men was 42.3 years and for women 36.5 years. The most populous age bracket for men was 40–44 years and for women 25–29 years (Kaspura 2012). This may evidence women's more recent entry to the profession but may also flag retention issues.

Australia has been identified as having one of the most gender-segregated workforces of developed nations (Department of Families, Housing, Community Services and Indigenous Affairs 2010). In Australia only 9.6 % of engineers are women (Arabia 2011). More than half of these women are under 30 years of age and only 15 % of women over 40 are still working in the profession (Arabia 2011). The Association of Professional Engineers, Scientists and Managers Australia (APESMA)

notes that female engineers make up about 10 % of the workforce but 77.8 % of them are in lower responsibility positions (levels 1 to 3 on a scale of 5), while a large number drop out of the engineering workforce mid-career (Arabia 2011).

While the number of women undertaking studies in disciplines such as medicine, veterinary science and architecture in Australian universities has grown to almost equal that of males, only 16.5 % of engineering students are women, and the 2008 commencing percentage was 15 % (Mills et al. 2012). The numbers of women in engineering education have been stagnant for about a decade (Mills et al. 2012).

What then are the causes of women's under-representation in engineering and why is the pattern of participation so varied across countries? Socialisation and gender identity, schooling and careers advice/knowledge, individual and country-specific perceptions of the image of engineering, university studies and the lived experience of working in the engineering profession all contribute to this situation (Bagilhole 2012).

Schooling

Early socialisation and education are thought to be contributing factors to women's lack of participation in engineering careers. However, overall, girls do as well as boys in STEM subjects at school, particularly in the primary school years (OECD 2009). At the primary education level, studies by the IEA indicate few gender differences in science and mathematics, but a clear advantage to girls in reading. On average, in the OECD's Program for International Student Assessment (PISA) girls performed better than boys in reading at grade 4, and were on an equal footing with boys in maths and science in this grade (OECD 2009). In secondary education, in grade 8 girls had a higher average performance in maths and science (OECD 2009). Girls also have a higher secondary education completion rate than boys in over 32 countries, with the exception of Turkey where boys have higher retention rates (OECD 2009). Australia ranks fourth after Canada, Hungary and Iceland on secondary school completion rates with boys at 63 % and girls at 73 % (OECD 2009).

However, there are marked differences in girls' and boys' attainments across countries. The 2012 OECD Report on the PISA tests (OECD 2012) indicated that in western and northern European countries and North America (e.g. Denmark, Britain, USA, Canada, Germany, France and Iceland but also Brazil, Peru and Colombia) boys performed higher than girls in maths and science. In contrast, in all Asian and most Eastern European countries and the Middle East girls performed better (e.g. China, Singapore, Taipei, Japan, Thailand, Indonesia, Russia, Israel, Serbia, Romania, Turkey, Greece, Bulgaria, Dubai UAE, Qatar, Albania, Jordan, Sweden, Finland).

Declining high school student participation in high-level mathematics, which equips students to enter and succeed in engineering courses, has been of concern in Australia for some years. Recently concern over Australian senior school students' standing in maths and science subjects in comparison to other countries has been

heightened by revelations that 18.8 % of Australian students undertake science, technology, maths and engineering subjects in comparison to 64 % of students in Japan, 52 % in China, 40 % in South Korea, 33 % in Russia and 25 % in Britain (Australian Industry Group 2013). In the USA the figure is 17 % (Australian Industry Group 2013). English-speaking nations thus appear to have less human capital with the capacity to meet current and future technological and scientific demands (Hill et al. 2010). In addition, the number of girls in Australia *not* studying maths for their exams at the end of the final year of secondary schooling has climbed from 7.5 % in 2001 to 21.5 % in 2011 (Australian Industry Group 2013). Industry experts suggest that the falling rate of girls studying maths risks cementing existing gender pay gaps (Tovey and McNeilage 2013).

In a number of countries there are also marked differences between boys and girls in their levels of interest in and enjoyment of mathematics as well as in their self-related beliefs, emotions and learning strategies related to mathematics. For example, in 21 out of the 40 participating countries and economies boys expressed stronger levels of interest in and enjoyment of mathematics than girls (OECD 2009). Enjoyment of a subject has also been seen as a key motivator to continue with it (Kiwana et al. 2011). The curriculum content and the way subjects are taught, and their relevance to girls' interests, have also been identified as factors that influence motivation to continue with that subject (Denis and Heap 2012).

Students' self-related beliefs showed similar patterns, with girls generally confident in their verbal abilities and boys in their mathematical abilities. A particular advantage for male students, their biggest strength outside the mathematics domain, was their confidence in being able to succeed in tasks even where they found them difficult while girls had much less confidence and more anxiety around mathematics. Even though the extent of this advantage was modest, its incidence was widespread: it was identifiable at a statistically significant level in all but three OECD countries (OECD 2009). Despite having marks at least as good as boys, girls have tended to undervalue their own performance, and hence their ability to pursue science and technology (Hill et al. 2010).

It appears also that girls in many countries, particularly but not solely English-speaking countries, make subject choices in the upper years of secondary school that steer them away from the STEM subjects needed for a tertiary education in STEM and entry to a wide range of engineering-related occupations. For instance, Kiwana et al. (2011) have found that in the UK girls at the age of 14 are effectively ruling themselves out of the possibility of studying engineering at university through their subject choices. The data also show that male and female students are making different tertiary education and career choices in relation to science, with girls showing a preference for health-related courses and boys for computing science (Kiwana et al. 2011).

There are many reasons why young women do not consider engineering as they would other professions. They encompass young women's lack of academic preparation for a STEM-related career, STEM curricula that are not relevant to young women's interests, a pedagogy that favours male students, a 'chilly' educational

climate in STEM classes and a masculine world view in scientific epistemology, cultural pressure on girls within the education system and wider society to conform to traditional roles (Denis and Heap 2012; Fox et al. 2009), and gender binaries and discursive constructions that shape female identity, goals and roles as incompatible with engineering (Diekman et al. 2010).

Well-informed and supportive maths and science teachers in high school have been identified as very influential in their role as mentors to high-performing students in maths and science subjects (Dischino et al. 2009). Careers advice to girls and their exposure to role models in engineering and technical occupations have also been found to influence subject choice (Bagilhole 2012). Kiwana et al. (2011) found that careers advice to UK girls was continuing to reinforce gender stereotypes.

University Education

While the girls and young women who do pursue STEM subjects at school appear to do as well as the young men, the conundrum remains that they then tend to choose tertiary education courses such as medicine, veterinary science and architecture rather than engineering. In most European countries, while the majority of higher education students are women, there is still greater gender disparity in engineering, manufacturing and construction disciplines (Bagilhole 2012). Analysis of European Union (EU) statistics (She Figs. 2009) reveals that women make up less than 25 % of science, computing and technology students and make up 70 % of those graduating in humanities, arts, education, health and welfare studies (OECD 2009). Women make up 20 % and 19 % respectively of European and world engineering students (Kumar 2010). Even in countries where the percentage of women graduating in engineering is higher than in many English-speaking countries it is still not commensurate with the percentage of women university graduates in almost all countries. For instance, in Spain there are three female university graduates to every two male graduates but women are still under-represented in engineering, making up about 23 % of engineering and university students (Del Rio Merino and Salto-Weis Azevedo 2012).

A few countries stand out from this trend, however, with Lithuania having 59 % female engineering, manufacturing and construction PhD graduates and countries such as Italy, Portugal, Latvia, Croatia, Serbia and Turkey having a critical mass of more than 35 % female graduates in engineering, manufacturing and construction (Barnard et al. 2012). In these countries women are most represented in architecture and chemical engineering and less in mechanical, electrical and electronic engineering (Barnard et al. 2012). Japan, with women at 11 % of the engineering student body, evidences one of the lowest participation rates for women in the world; however, it must be remembered that women comprise only 38 % of first degree students whereas in the US and Europe respectively women comprise 57 % and 55 % of all undergraduates (Kumar 2010).

The number of women in engineering courses in English-speaking countries falls below overall EU figures. In 2008 in the UK, while women made up 55 % of university students, they made up only 18 % of engineering students (Barnard et al. 2012). However as engineering student numbers have declined from 16 % in 1972 to 7 % in 2008 the proportion of women in higher education studying engineering subjects is now at the same level of 2 % as in 1972 and noticeably lower than other European countries (Bagilhole 2012). In the USA women comprise 21 % of total undergraduate completions in engineering (Kumar 2010). In Canada, female graduation from undergraduate engineering degrees decreased from a peak of 21.8 % in 2003 to 18.9 % in 2007 and 17.1 % in 2008 (Engineers Canada 2009).

In addition, women are also often not represented in the areas of engineering that have high numbers of students/graduates overall. For example in Canada in 2007 chemical and environmental engineering degrees had over 40 % women enrolments, but they accounted for only 9.3 % of all engineering degrees awarded (men and women) (Engineers Canada 2009). At the same time electrical and mechanical degrees, with low numbers of women, accounted for 70.4 % of all engineering degrees (Engineers Canada 2009). In Australia in overall completions women are outnumbered by men 5 to 1 in engineering and related technologies with 11,418 men completing diploma to PhD programs in engineering and 2,447 women undertaking the same types of education (DEEWR 2008).

Fox et al. (2009) described two main schools of thought on the under-representation of women in scientific and engineering education, which they described as a matter of 'individual issues' versus 'institutionalised issues'. The first perspective attributes the status of women in science and engineering to women's individual characteristics such as attitudes, behaviours, skills, experiences and aptitudes that may affect their participation and performance in science (Fox et al. 2009). They cited women's lower level of self-confidence for science as a barrier to pursuing careers in these fields. Likewise, the level of motivation to study science may be regarded as supports or barriers to pursuing scientific careers (Fox et al. 2009). Institutionalised issues relate to the way STEM subjects are taught and a 'chilly' pedagogical and social climate.

In relation to individual issues, some women view engineering as problematic from a career perspective in that they envisage conflict between career and family, have the perception that the work is unfeminine or potentially unsafe, and lack confidence that they can handle the work. They may also experience a lack of encouragement from others to pursue an engineering pathway (Hartman and Hartman 2008). Others may experience feelings of isolation and a drop in self-confidence and self-efficacy as they progress in their degree (Fox et al. 2009). As well as lack of confidence and self-efficacy women may also be harshly judgemental on themselves. Zhao et al. (2005) suggested that women may overcompensate for being in a male-dominated course and believe they must do extra well to be considered competent. While these factors may be seen as 'individual', they can also be a justified reaction to institutional factors.

At the institutional level, in universities the study of engineering may lack content relevance or be taught in such a way that it is less attractive than humanities,

business studies, creative arts and other subjects, thus narrowing the educational 'pipeline' (Sonnert et al. 2007). Women who have an interest in STEM subjects may be more likely to study psychology or the biological or agricultural sciences (Little and Leon de la Barra 2009). Other reasons include curricula that do not appear socially relevant, an inherent masculine view in scientific epistemology and male-normed learning environments where women feel out of place and more vulnerable to negative assessments by predominantly male professors and where they may be ignored or condescended to (Blickenstaff 2005). Furthermore, the lack of female role models has been identified as an issue. For example, in the USA and Canada in 2008 women made up only 12.3 % of total tenure track faculty in engineering and only 7.4 % of full professors (Yoder 2008). In North America, women tend to be in the lower-level academic positions in engineering, earn less, are promoted less frequently to senior academic ranks, and publish less frequently than their male counterparts (National Science Foundation 2005). Similarly, in the EU only 7.2 % of the engineering and technology professors are women (Husu and Kosinen 2010).

For those young women who do succeed in STEM subjects the relational and socially relevant nature of career choices in medicine or architecture may seem more related to people's lives than engineering, and the perceptions and reality of engineering careers may be not in synergy with many women's life aspirations (Arabia 2011). Engineering may not be seen as having a socially relevant imperative (Denis and Heap 2012).

As well as the phenomenon of fewer women entering university engineering courses, there is also evidence of some leakage of those who do enrol. Women in engineering often see it as an 'unfeminine' profession, or its image or academic climate dissuades recruitment and retention of women, who may move to other courses. This may involve classroom culture, pedagogy and curriculum content that has a male bias, assumptions on the part of academic staff that all students have tacit knowledge and previous hands-on technology experience or (well-intentioned) compensatory 'special help' for women which may lead to resentment from male students (Bagilhole 2012).

There is thus a narrowed pipeline into university but indications are that women are no more likely to drop out of engineering courses than men. In fact, evidence suggests that those women studying engineering to graduation have similar strong affiliation with their discipline as their male counterparts and, overall, once in their engineering courses, women have a good retention rate of 60 % in comparison to men's retention rate of 52 % (UNESCO 2010). The issue is that there are so few women overall entering university engineering courses that any attrition has a profound effect.

Women in the Engineering Profession

There is also a leaky pipeline relating to those women qualified in engineering who enter and then stay in the profession. In Sweden 53 % of all women who are qualified in engineering and manufacturing work in engineering and manufacturing (Swedish

Statistical Database 2010). Similarly, in Canada, a greater percentage of women compared to men with degrees in the science, engineering and related fields are working in social science, education, government service, health, business, finance and administration (Research Council of Canada 2010). It appears that women who train in engineering leave that profession but remain in the wider professionally qualified workforce in their respective countries. In 2010 the UK engineering sector made up nearly one fifth of the UK economy (19.6 % of gross domestic product) and employed over 4.5 million people; however, a substantial number of women qualified in STEM (76 %) did not go into STEM occupations but were inactive, unemployed or in other types of jobs (UKRC 2011). In addition, two thirds of women did not return to STEM occupations after maternity leave; at best only 24 % of STEM-qualified women make a long-term career in the sector (UKRC 2011).

Acker suggested that bureaucratic organisation has a gendered substructure that 'lies in the spatial and temporal arrangements of work, in the rules prescribing workplace behaviour and in the relations linking work places and living places' (1990, p 155). Removing barriers to women working in occupations traditionally done by men and increasing women's retention are strongly related to work cultures and practices (Kiwana et al. 2011). The ideologies and work practices of the engineering profession and the culture of organisations that employ engineers can thus be experienced by women as gendered (Bagilhole 2012; Mills et al. 2007) and have been seen as a contributing factor to women leaving the engineering profession in greater numbers than men (Roberts and Ayre 2001). These factors include working hours and an inflexibly long work hours culture, family-work conflicts, harassment, gender stereotyping in relation to notions of masculinity and gender-appropriate work/management styles, gender identity and occupational socialisation in a masculinised work culture, gendered networking (homosociability that locks women out) and its relationship to promotion, career progression and health and safety (Bagilhole 2012; Gibson and Scobie 2004; Mills et al. 2007; Roberts and Ayre 2001). In Australia, Gibson and Scobie (2004) have identified the 'greybeard phenomenon' that exists in industries such as mining and the difficulties women engineers face in relation to balancing family and work, promotion, stereotyping, harassment and workplace culture, lack of role models, management styles, and health and safety.

International studies report that engineering careers, even when women make up more of a critical mass, can be problematic. Šidlauskienė's (2008) interviews with 178 female engineers from 11 countries (including UK, Russia, Austria, France, Germany, Slovakia and Chile) indicated that the work-life balance issue was more of a factor when the woman was part of a dual career couple, and had management responsibilities and children. In her study, part-time work was seen as a handicap to a career in engineering as there was an expectation that an engineering job required the attention of a full-time worker. Full-time work is thus positioned as evidencing career commitment. Additionally, women in STEM are more likely to have a partner who is also in STEM and faces a similarly demanding work schedule. In a situation where a 'two-body problem' exists, the man's career is often given priority (Hewlett et al. 2008).

In France, Didier (2012) suggested that the drop-out rate (the leaky pipeline) is greater for women than for men after university graduation. This can occur on graduation but often after the birth of their first or second child. She cites lack of support from their husbands (very often also engineers) and their organisations in assisting them to combine carer and caring responsibilities. Other more broad-based research with professional women in the USA supports this, finding that women whose partners worked long hours were more likely to leave their professions than those who had spouses who did not work long hours (Cha 2010). However, professional men whose wives worked long hours did not quit their jobs. In addition, other research on female scientists indicated that female scientists did 54 % of the core tasks in their homes (e.g. cooking, ironing) while their male colleagues (not marital partners) did 28 % of this work in their own homes (Laster 2010).

In a study of STEM professionals in the private sector, Hewlett et al. (2008) found that many women appear to encounter a series of challenges at mid-career that contribute to their leaving careers in STEM industries. Women cited feelings of isolation, an unsupportive work environment, extreme work schedules, and unclear rules about advancement and success as major factors in their decision to leave. Other studies have found that most women and men who left engineering said that interest in another career was a reason, but women were far more likely than men also to cite time and family-related issues (Frehill et al. 2008).

In Australia, research commissioned by Engineers Australia (Mills et al. 2007) revealed a heartening growth of family-friendly practices in the workplace. 70 % of women and 78.3 % of men reported that flexible work hours were available within their organisations and 75 % of these women and 79 % of these men had used this practice. Other practices such as part-time work were reported by 67 % of women and 55 % of men but only 21 % of women and 10 % of men had used this practice, indicating there may be other factors constraining women from using this practice. Paid maternity leave was available in 72 % of workplaces but had been used by only 11 % of women. This may be because many of the women were younger and did not yet have family responsibilities. The survey also reported that 77.8 % of female engineers were in lower-responsibility-level positions (levels 1 to 3 on a scale of 5), which was also reflected in their remuneration levels.

However, APESMA in its more recent study of women in the professions reported that 60 % of its respondents in the engineering profession agreed that in their occupation women had to prove themselves whereas men were assumed to be capable and 71 % of engineering respondents thought that taking maternity leave would be detrimental to their career (Arabia 2011). In its earlier research (APESMA 2007) women were leaving the engineering profession 38.8 % faster than men. APESMA suggested:

When women leave the workforce, with them goes hundreds of thousands of dollars of investment in their education and training. Retaining this highly specialised workforce should be a priority. It is a workforce taxpayers willingly invest in because the return is delivered in better health care, in hi-tech gadgets, in superior mining and defence capabilities, to name just a few. But, particularly in the case of women, we train them up then fail to keep them in the business because practical and equitable career pathways aren't available when it counts. (Arabia 2011)

For some women in engineering, reconciling their gender identity with their work identity in male-dominated workplaces poses tensions. Dryburgh (1999) contrasted women's negotiation of the engineering academe, where they can flourish and excel through hard work, and engineering workplace cultures that value fascination with technology, tinkering and aggressive self-presentation as symbols of competency. Some women flounder in the latter while others adopt the symbols and swagger of the 'blokeish' (aggressively male and homosociable) culture in order to be taken seriously. Gill et al.'s ((2008) Australian research with 41 female and ten male engineers and case studies of worksites involving engineers and managers revealed women's pride in their maths and science expertise. Several of the women had a family connection in engineering and had a real delight in the work of engineering. However, these women saw their early facility with STEM subjects and their current work as unusual. The researchers found that women adopted one of two main gender identities: being 'one of the blokes' and speaking and acting in a way that was 'butch' or being the 'pretty woman' with feminine dress codes and expecting to be treated as special by their male workmates, even as 'mother' or 'daughter'. Women are often regarded as 'honorary men' or 'flawed women', either way a poor fit (Bagilhole 2012).

The image of engineering companies also has a role in attracting women. In Sweden, Ramsauer et al. (2012) reported that female engineering graduates are attracted to companies that have an image that blends both technical orientation and holistic products and purposeful sustainable activities. This echoes the research in Australia by Wallace et al. (2012) where the branding and image of a firm was important to graduates and where women more than men expressed altruistic aspirations to hold a job that benefitted society (also see Wallace and Sheldon 2012). UNESCO (2010) also concluded that young people in general are more likely to be attracted to engineering if they understand the role of engineering as a driver of innovation and social and economic development.

Contemporary Strategies to Address the Under-representation of Women

The situations described above have been cause for concern in some countries for almost 30 years. We acknowledge that some governments, schooling systems and universities have tried to open the pipeline with a wide range of initiatives. In the last section of this chapter we describe some initiatives that attempt to address the skills wastage.

In 2004 the UK Resource Centre for Women in Science, Engineering and Technology (UKRC) was set up and funded by the UK government. Its remit was a holistic approach that covered educational institutions (school and higher education), employers, women SET professionals, professional associations and NGOs and was informed by socialist feminist scholarship. Its areas of intervention included issues of gender stereotyping and self-stereotyping by girls and women, family

friends and media, school options and qualifications, careers education and advice, higher education training and pedagogy, employment policies and practices, professional institutes, and government legislation and policy (Bagilhole 2012). In the European Union, the Higher Education Leading to ENgineering And scientific careers (HELENA) project comprising Lithuania, Spain, France, Austria, the UK and Serbia has worked since 2009 researching ways to attract young people, particularly women, into engineering. In particular, HELENA has amassed statistics on career choice, gender and engineering, reviewed engineering curriculum and advocated for interdisciplinarity in engineering education (HELENA 2009).

In North America there are numerous outreach programs that are particularly targeted towards developing inclusive pedagogies in STEM subjects, presenting female role models in engineering and related careers and offering hands-on STEM experiences. For instance, Jeffers et al. (2004) reported on 59 outreach programs that provide classroom materials, professional development for teachers or STEM experiences for young people. A number of these are targeted at girls and include summer internships in research laboratories, week-long residential programs for high school girls that include classroom activities, industry visits, experiments and contact with practising female engineers and working with Girl Scout troops to introduce girls to engineering disciplines. In addition, the US National Academy of Engineering, with industry partners, developed a five-year program to target female students from grade six to their first years in college with National Science Foundation Funding of US \$ 2.5 million (Wollcott 2007).

In Australia there have been various programs in the schooling system to attract girls to maths, science and technology subjects, and develop more inclusive pedagogies and relevant curriculum content. Engineers Australia has run outreach programs for school students, and organisations employing large numbers of engineers such as IBM have committed to supporting programs such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Science in Schools program. Furthermore, the 2012 Australian government budget directed a \$ 54 million package of initiatives to promote greater STEM awareness, to improve high quality teaching in mathematics and science, and national initiatives to set new benchmarks on school student participation and attainment in STEM subjects (Australian Industry Group 2012). Clearly the pipeline needs widening through pedagogical, climate and careers advice in the schooling sector so that more girls take up engineering studies.

Most reports on engineering shortages and lack of interest from students in STEM subjects point to the need to raise awareness of engineering as a profession. Engineers Australia's (2009) 'Make It So' campaign began as a public awareness initiative in 2008 with a competition in 2010 for those envisaging the projects engineers could undertake to make the world a better place. It is now a major platform for Engineers Australia to continue to promote and celebrate engineering globally.

Other initiatives focus on employment. In 2011, in recognition of the poor retention rates of women in the science and engineering workforce in Australia, the Australian Research Council and the National Health and Medical Research Council decided to change the way they assess research publications to allow for women's career breaks (Arabia 2011). At the same time, the CSIRO embarked on a review of

its promotion processes from a gender perspective and will report on gender participation, the Australian Technology Network universities agreed to set performance targets so that the percentage of female staff who teach science, engineering and technology subjects reaches the percentage of women employed in those industries, and the Federation of Australian Scientific and Technological Societies undertook to work with scientific societies across Australia to conduct an audit of employment and promotion processes with a view to increasing the participation of women through best practice (Arabia 2011). These initiatives have the potential to create significant workplace cultural change.

Such initiatives are heartening and show resolve for transformational change. The UK example appears to be singular in that it tackles the complex issue at all levels of education from government policy, specific education initiatives and workplace perspectives through an open systems approach.

Conclusion

Political leaders and policy makers appear to agree that the development and application of technology and engineering knowledge underpins and drives economic innovation and productivity as well as driving sustainable social and economic development. Most would also agree that one of the biggest issues facing the profession is the decline of interest in STEM from young people and the subsequent low numbers of high school students especially women enrolling and graduating in engineering, which has resulted in engineering skills shortages in most countries.

While efforts to redress this situation have had some impact, engineering remains a heavily male-dominated occupation in many countries, notably English-speaking countries. In Australia infrastructure industries such as rail need to work closely with policy makers, education systems and professional bodies to support cultural and attitudinal changes so that more young women are prepared for and participate in STEM careers.

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Part II
Human Capability and Capacity Building

Chapter 8

Transitions in Workplace Communication: Perspectives on the Efficacy of Formal Workplace Mentoring

Tom Short

Abstract This chapter considers the emerging practice of formal workplace mentoring and reports on how company-initiated mentoring programs have become the latest trend in a long line of communication techniques used by human resource managers to engage employees and potentially resolve a wide range of motivational, developmental or employee-related issues. Using the lenses of critical human resource development and reflective analysis the chapter compares mentoring concepts with three workplace communication strategies that have been widely deployed over the last three decades: team briefing, quality circles and performance coaching. The study uses information from the literature and qualitative research conducted in Australia to examine the present-day practice of formal workplace mentoring and uses ten characteristics to evaluate these communication techniques. The findings reveal a growing interest in workplace mentoring by employers and employees, but warn that the penalties of getting this method of communication wrong might outweigh the benefits, especially if formal mentoring programs are not planned, resourced, implemented and evaluated correctly.

Introduction

Paradoxically, formal workplace mentoring as a management-led communication practice is not new and draws its beginnings from ancient Greek mythology. It was adapted during the sixteenth century as a means of preparing young people for work. This chapter draws attention to the high level of sustained commitment needed when adopting mentoring as a sophisticated workplace communication technique. Studies reveal that behind the facade of good intentions that exist within mentoring programs lies the hidden potential for individuals to have negative experiences that not only promote employee unrest, but also undermine the efficacy of other workforce communication initiatives.

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Formal workplace mentoring programs have become increasingly popular in organisational settings and are used to address a wide range of workforce development challenges such as improving levels of employee engagement, reducing absenteeism, increasing retention, enhancing careers and promoting wellbeing (Ehrich and Hansford 1999; MacGregor 2000). Moreover, in an era of economic uncertainty and workplace instability, mentoring is thought to be a cost-effective enhancement to on-job training (Billett 2003) and more closely aligned with helping individuals rather than work groups (Eby et al. 2000). More often than not, mentoring programs find a place in the modern workplace where they are meant to complement other forms of employee communication or human resource development (HRD) such as training and coaching.

In order to evaluate the significance of mentoring and its use in today's context, in this chapter I look back to compare workplace mentoring with three well-known methods of employee communication used extensively over the last thirty years. To aid this analysis I have used a framework of ten common characteristics that define the essence of each method. In an era where people are becoming more sceptical about ever-changing management fads, I discuss why the ancient Greek concept of mentoring is popular among HRD managers and evaluate the likelihood of whether workplace mentoring can endure where other approaches have diminished or ceased altogether. In this debate I question whether mentoring is a newly resurrected and politically convenient way of improving workplace democracy; whether mentoring personalises workplace communications and promotes wellbeing, or merely aligns employees (mentees) and their career development plans with business needs. In a critically reflective environment, using the term 'alignment' unearths probing questions about whose interests are being served by taking part in a formal workplace mentoring program (Bailey and Clarke 2008; Anderson 2009).

Precursors to 'New' Mentoring

The literature on mentoring talks frequently about humanism and the significance of creating or enhancing both formal and informal relationships (Chao et al. 1992). Studies in Australia have found that informal mentoring has been pervasive and generally thought to be more effective than formal mentoring in the workplace because it happens in a voluntary, spontaneous and relationship-driven manner (Morrison et al. 2012). Moreover, the interpersonal processes of how people communicate within an informal mentoring relationship are often seen as more natural, devoid of any power, status or any unpleasant consequences arising from failure. In contrast, formal mentoring programs are much more structured, coordinated and monitored for success by the host organisation and not always available to every employee. These divisions of opinion place a heavy responsibility on workplace mentors to get it right; but at the same time mentees can easily succumb to unrealistic expectations and disappointment from the process.

Before we consider the utility of workplace mentoring it is helpful to review the broader context of workplace communication and in particular other methods that employers have deployed over the years to gain similar benefits to those associated with mentoring—such as improved employee relations, worker engagement, knowledge sharing and the professional development of individuals. Seasoned followers of workplace communication activities will recall a diverse range of HRD strategies used to engage employees, improve performance and address other personnel or training issues (Emelo 2010). In this study I compare mentoring with three once-popular techniques: team briefing systems, problem-solving quality groups (under the mantra of total quality management) and performance coaching. It is easy to become confused and, to reinforce this point, an article in the Australia Human Resource Institute magazine entitled ‘Performing acts’ reported: ‘Once the *side kick* to more popular coaching training methods, mentoring is starting to outshine its allies in many Australian workplaces’ (cited in Simmonds and Lupi 2010).

Empirically at least, it appears that HRD practitioners have put their faith in popular and innovative approaches to workplace communication over a ten-year cycle, each decade influenced by a compelling rhetoric or given business imperative. Critics have argued that the clarity of this rhetoric and its apparent utility has enticed leaders to look for the elusive silver bullet and reassured managers into an unquestioning belief that the latest technique must be good because of its success in headline organisations (Hilmer and Donaldson 1996). Notwithstanding the unquestioning advocacy associated with this notion, in recent years the emerging critical debate on human resource development (HRD) has challenged the efficacy of these management-led communication strategies and their value to mainstream employees, believing them to be tainted with inequity, overt managerialism and a quality-centric or ‘performative’ intent that serves only the business interests of the employer (CIPD 2011, p. 17).

In many organisations, workplace communication strategies are advocated and deployed by human resource management (HRM) practitioners—reported sometimes to be a highly questionable profession that has emerged from right-wing ideology. Critics claim that HRM, and its junior offspring HRD, have grown on the back of neo-liberal economic politics and, despite having high prominence in many organisations, are in deep crisis, bereft of theory and disciplinary foundation—all too frequently using fashionable ideas or fads to align employee behaviour with business requirements of the present day (Sambrook 2004; Anderson 2009; Short 2011). The accumulated impact of these issues may therefore affect the credibility of workplace communication initiatives enacted under the mantra of HRD. Moreover, the extent to which someone becomes an advocate, opponent or innocent onlooker in these debates depends largely on the amount of vested interest and influence they have in shaping (and benefiting from) the final outcome, or conversely bearing the consequences of failure.

It is with these issues in mind that I consider three once-popular and HR-driven systems of workplace communication. In this brief synopsis I look at team briefing, quality-centric problem solving groups (called quality circles) and performance coaching, which have preceded workplace mentoring in terms of popularity. The

purpose of this concise analysis is to unearth issues that may affect the longer-term efficacy of mentoring; in effect, engaging in a ‘retrospective appreciation’ of these other communication techniques (Short 2008, p. 250).

Team Briefing

In the early 1980s employees in large public and private sector organisations were unsettled by the poor economic climate, caught up in unstable workplace relations and felt threatened by management decisions. Team briefing (TB) or briefing groups were established widely in multi-level organisations to dispel workplace unrest; get management messages across; involve people in their work; and, some argued, position leaders to ‘bypass workplace trade union organisation’ (Marchington et al. 1993, p. 28). In its heyday, entire organisations came to a complete standstill for thirty minutes once per month while team briefing was enacted in a cascading fashion, first initiated by the chief executive officer to senior managers and later progressing through the organisational hierarchy to reach frontline leaders in less than 48 h.

The essence of TB was a strong belief that once workers at all levels were ‘informed’ and ‘updated’ they would understand business issues, accept the information and engage willingly in management decisions. The principles of TB assumed that employees valued direct, factual information delivered on a regular basis by the local team leaders—thereby reducing the destructive power of the ‘grapevine’ and making leaders more accountable for communicating (Garnett 1973). In the UK for example, briefing systems were used successfully by hundreds if not thousands of organisations, and some have survived up to the present day. Fundamentally, TB best served segmented groups of employees who worked in close-knit, predictable teams, where leaders were seen as guardians of the operation. TB was designed to transcend organisational hierarchy, deliver management messages and build workforce morale.

Today in periods of endless rationalisation, just-in-time process functionality and business complexity, it seems inconceivable to stop an entire organisation for a half-hour each month and overly expensive to attempt—so briefing groups have become much less popular. In parallel with these logistical challenges, more convenient and individualised forms of workplace communication have become popular—though TB was never intended to be the only method of communicating with employees (Thomson 1983). Moreover, TB required a significant amount of commitment from a dedicated coordinator—usually someone from the personnel or training functions, but this role has become less sustainable with the segmentation of HR services to outsourcing agencies. Nowadays, as the workplace becomes individualised, group briefings are less popular because employee information is available widely in electronic formats such as the internet or intranet. Moreover, work groups are less hierarchical and self-managed. In locations like Australia work teams can be dispersed across many boundaries and borders, thus reducing the likelihood of regular face-to-face meetings or training events (Homitz and Berge 2008).

Quality Circles

Shortly after the downturn of TB in the 1990s, workplace communication techniques became more sophisticated, and arguably strategic, to embrace a multifarious range of activities contained within the concept of organisational development (OD). OD attempts to make organisations more viable by planning learning and development activities in a systemised way, thereby aligning the development of people with evolving business goals and changing circumstances. At the time, attention was directed towards the uptake of new management practices (NMP) and OD concepts such as business excellence and total quality management. These frameworks, which emerged principally in the northern hemisphere before migrating south, aimed to improve quality, build competence assurance, secure continuous improvement and manage change (Smith et al. 2003; Oakland 2004).

The business environment in the 1990s was further influenced by a surge in neo-liberal politics and the growing phenomenon of globalisation. Enterprises in Europe and North America were forced to become more competitive in order to survive and learn how to deal with the progressive transfer of manufacturing to faster and leaner organisations based in Asia. NMP techniques invited employees to engage in a different way from the past; hence communication systems such as suggestion schemes and briefing groups were supplemented or replaced with more empowered, less hierarchical problem solving teams called quality circles. NMPs further aimed to reduce waste, improve cycle times and gather team-based ideas to change workplace culture. For employees, the hitherto straightforward task of posting a suggestion in the wooden box was contrasted with becoming part of a quality-focused problem-solving team that included time off during working hours for training and attendance at structured group meetings for a limited amount of time. Replicating techniques used in the Japanese motor industry, these new forms of employee communication aimed to induce ownership, create team identity and provide ‘information platforms’ where senior managers were encouraged to support a series of never-ending ideas from workplace problem-solving groups and then engage positively with the resulting knowledge that was freshly harvested from the front line. Union adversaries argued that these groups were subversive and intended to channel employee suggestions away from a rewards system; and for many small/medium sized organisations, the sustained cost–benefit of QC projects was comparatively low.

By the end of the 1990s many OD initiatives had either diminished or expired with business rationalisation projects or with the further outsourcing of HRD practitioners—who, as with TB, were largely responsible for overseeing the implementation of these projects. Moreover, as business and markets became more volatile with globalisation, and with strategy formulation perhaps being more of an art form than a science, it became much more challenging for senior managers to sustain longer-term OD projects. Consequently, in a similar way to TB, OD survived to the present day, but it is much less talked about at HR conferences and seminars.

Coaching

In the new millennium, workplaces are markedly different from the early 1980s. Emerging overseas markets and a series of never-ending innovations from Asia continue to threaten the competitive advantage of western organisations. In a global environment of skills shortages in specialist areas, such as engineering and human services, employees with talent have suddenly become globally transportable to the faster-growing knowledge and information economies. Neo-liberal influences in the workplace have largely overshadowed the widespread demise of collectivism and, as a consequence, the responsibility for performance improvement has shifted from the work group to the individual with NMP concepts such as individual contracting arrangements and performance improvement (Walters et al. 2004). Formal communication strategies for reviewing an employee's contribution and then providing incentives for the employee to increase performance have largely become one-to-one and highly systemised. In the new millennium era, former appraisal meetings are suddenly highly criticised in favour of a hybrid system called performance management (PM)— a new term meant to signify much improved equity and management interest in maintaining the all-important employment relationship when balancing the organisation's needs with the aspirations of individual employees.

The practice of PM is an interesting topic to keep an eye on. In the last two decades, organisations around the world have embraced PM as the most effective way to manage human resources; 'former trainers have been redefined as HRD practitioners' and given a new lease of life to prepare employees for PM and consequential development (Forrester and McTigue 2004, p. 226). Meanwhile, external agencies have created a myriad of development tools and psychological instruments to measure whether an employee can be judged 'in' or 'out' of the cultural mindset. Alignment has become a keyword in HRD literacy, but for those unfortunate people who are judged to be 'misaligned', say with the organisations' core values and mission, the solutions are generally narrow and involve two options: (1) finding another role where one's skills might fit better or (2) taking part in performance coaching (Chorn and Hunter 2004; Turner 2004; Kaplan and Norton 2006; Short 2006). This trend has spurred a major upsurge in workplace coaching, used concurrently with PM, often purchased from external sources, frequently unregulated in terms of ethical practices and often failing to produce the desired end results. In one research report, an employee commented on the uncoordinated upsurge and decline of coaching in his organisation: 'A few years ago they had about fifteen different types of course on coaching but now have only two' (Short 2008, p. 198).

Despite the popularity of workplace coaching, there is emerging concern, in Australia for example, about the lack of professionalism within the coaching industry, in particular the shortage of standards and/or the ethical misuse of coaching techniques by rogue operators. The interest is primarily focused on ethical questions arising out of coaching practice and how an organisation can provide safeguards against poor quality coaching delivery. In the absence of national standards, countries such as

Australia have embarked on developing codes of practice among professional associations, providers and interest groups. There is also much confusion about the pedagogical difference between coaching and other learning activities such as on-job training and workplace mentoring. Standards Australia, a peak national standards body, has addressed this concern by convening a sub-committee of expertise specifically to address the application of coaching in Australian organisations (Homitz and Berge 2008).

Mentoring

To conclude this brief overview of the issues and developments in workplace communication practice, I consider formal workplace mentoring and the growing trend to use mentoring as a new approach to improving the engagement, development and retention of employees. Studies show that the global interest in both mentoring and coaching has risen tenfold in scholarly publications over the last sixteen years (Simmonds and Lupi 2010; Short et al. 2012, pp. 10, 48). Therefore, for the remainder of this chapter, I will consider the growing popularity of workplace mentoring by reflecting on the literature thus far and comparing findings with research information found in an Australian industrial setting where formal mentoring programs are on the increase.

Looking back at the aforementioned workplace communication strategies (briefing groups, problem-solving teams and coaching) at least ten common characteristics can be identified with mentoring. I will use these characteristics to evaluate whether lessons can be learned from the past and to determine whether formal mentoring programs, as a means of employee communication, can add equitable value for the participants. In doing so, I ask whether mentoring can avoid becoming another HRD fad that falls short of expectations, but at the same time becomes deeply embedded in the long-term memory of the workforce. These ten characteristics are:

- commitment and sustained support from senior executives;
- a communication strategy that is formal and organised;
- successful implementation plans using a dedicated project team and/or coordinator;
- communication systems form part of a broader HRM or OD strategy;
- face-to-face and regular methods of communication are preferred;
- participation during time off the job;
- training to partake in the system, normally provided by external agencies with expertise in the subject area;
- knowledge sharing and regular feedback to sustain employee engagement;
- a performative intent, or underpinning ethos of improvement and behavioural change, embedded within the process; and
- caution among representative groups about the undisclosed intent of the communication.

Approach to the Study

The main study within this chapter draws on a qualitative research project conducted in Australia during 2011–2013 and was supported by the CRC for Rail Innovation (Workforce Development Program). Cooperative Research Centres (CRCs) are major programs of research sponsored by the Australian government and bring together a partnership of leading organisations and academic institutions to address issues of national significance. This study into workplace mentoring and coaching delved into a range of issues surrounding mentoring and, in particular, looked at how mentoring compared with, or was different to, other forms of HRD.

Following a systematic review of relevant literature in the areas of workplace communication, HRD and mentoring, semi-structured interviews relating to the application of formal workplace mentoring were held with representatives from research partner organisations. Comments from respondents in these organisations are reported later, using the letters V, M, Q and A to protect identities. All of the organisations had either conducted mentoring programs in the past, were currently engaged in mentoring, or planning to commence a program in the future. We interviewed human resource and learning and development managers who were (or would be) responsible for formal mentoring initiatives and mentees who were involved in existing programs.

Interpreting the research findings further, we considered a range of perspectives taken from critical HRD studies to analyse issues arising from the information. Critical HRD is an emerging field of study and only just beginning to question modern-day HRM policies. Critical HRD challenges assumptions embedded within the neo-liberal or human capital mindset that have been enacted by organisations over recent decades where the ideas of vocationalism, competence, aligned learning and performance improvement are seen as the only things that matter (Jesson and Newman 2004). Among other things, critical HRD interrogates the inequities and dubious principles embedded within a range of contemporary management practices that have become not only widely used in workforce development strategies, but also taken for granted by managers and employees.

Discussion and Findings

Mentoring

The principles and practices of mentoring have been around for some time and mentoring literature customarily refers to the ancient Greeks and Homer's *Odyssey*, but mentoring has further historical connections in the sixteenth-century Renaissance period and in particular with the development of apprenticeships, as we know them today. More recently the upsurge in business interest has come from the individualisation of work arrangements (Lumpkin 2011); a pressing need for organisations to

Table 8.1 Benefits of mentoring

Benefits for mentors	Benefits for mentees
Developing interpersonal skills	Developing reflective learning
Opportunity to nurture networks	Increased confidence and self esteem
Learning the art of reflective dialogue	Developing goals and direction
Satisfaction from helping to develop people	Realising professional aspirations

harness tacit knowledge from valued employees; the requirement to provide development in areas where group training may be inappropriate; and the challenge to find ways of retaining staff (Short et al. 2012). In Australia traditional, heavy industries such as rail have a looming double crisis as they struggle to retain older workers, attract new talent and engage with younger apprentices (ARA 2008), and mentoring is seen as highly relevant in meeting these needs.

Despite a proliferation of definitions and discussions about the concept of mentoring, most definitions provided in the scholarly and practitioner literature refer back to the seminal studies on workplace mentoring undertaken by Kathy Kram in the mid-1980s. The literature comments on how mentoring is an intense long-term relationship between a senior, more experienced individual (the mentor) and a more junior, less experienced individual (the protégé)' (Kram 1983; Kong et al. 2012) According to Arthur and Rousseau (1996), mentoring is characterised by six facets:

1. An underpinning reason or goal.
2. A valued relationship with one or many.
3. The transfer or development of knowledge.
4. Psychological development or support.
5. Mutual benefit for those partaking.
6. A desire for the mentee to grow.

These early definitions and characteristics have subsequently been expanded, critiqued and disputed into themes that ask: Can peers be mentored? Can a direct superior be a mentor? Can mentoring be formalised? Most contemporary literature identifies two over-riding dimensions to workplace mentoring—career development and psychosocial support—and delineates between formal and informal mentoring. (Chao et al. 1992). The literature offers two perspectives: a career development variety attributed to an American mindset in comparison with psychosocial support more prevalent in the European studies (Short et al. 2012). Irrespective of the paradigm chosen, successful mentoring relationships can be highly satisfying and productive for the mentee and mentor, offering a wide range of benefits and opportunities as shown in Table 8.1, using information adapted from the UK Institution of Railway Operators (Judge and Kammeyer-Mueller 2011). Additionally, a range of organisational benefits can accrue from workplace mentoring including stabilising and reinforcing the company and improving communications across different organisational levels (Bamford 2011); increasing organisational engagement and loyalty (Ragins 1997); and retaining core competencies (Koc-Menard 2009).

Table 8.2 Informal and formal mentoring

Informal	Formal
Initiated without organisation support	Initiated by the organisation
Individual driving forces	Driven by the organisation's agenda
Mentor and mentee self-select	Mentor and mentee matched by a third party
Low organisation visibility	High organisation visibility
Unstructured meetings, as needed	Meetings structured by facilitator
Long-term duration	Shorter-term, pre-determined endpoint

Formal or informal

Further assertions in many studies suggest that informal mentoring is more effective and longer lasting than formal mentoring. Informal mentoring is a naturally occurring and spontaneous event whereas formal mentoring is typically, but not always, work-related, entails informal communication activities, is usually face-to-face and takes place over a sustained period of time.

The impact and effectiveness of formal mentoring programs on mentors, mentees and organisations remain an under-researched area and 'many organisations are developing and implementing formal mentoring programs without the benefit or guidance of empirical research' (Campbell et al. 2011, p. 334). Therefore participants cannot anticipate whether or how formal mentoring relationships will replicate naturally occurring mentoring relationships. This finding is all the more reason why stakeholders need to consider formal mentoring programs built on sound principles that are supported by solid organisation commitment. Table 8.2 contrasts the two approaches and is adapted from work by Blake-Beard, O'Neill and McGowan (2011).

Mentoring in Relation to HRD

Notwithstanding the reported benefits of formal workplace mentoring for both individuals and organisations, our findings pose a number of challenges for organisations in relation to how they choose to deploy formal mentoring programs, particularly when mentoring is implemented as part of an HRD system or communication process. In recent years many organisations have become susceptible to management fads in the pursuit of success and, on face value, formal workplace mentoring can sometimes be confused with performance coaching or inadvertently drift into counselling. Yet all of these techniques share similar characteristics, in particular communicating with employees on a personal basis, and are initiated to deliver a positive outcome for those involved. However, there the similarity ends as coaching and counselling are not always based on reciprocity where the process involves a mutual, rather than one-way, conversation. Coaching, for example, has much more focus on performance improvement and job-related skills or behaviours and is typically of shorter duration

than mentoring (Lipscomb 2010). In comparing the pros and cons of mentoring with the ten characteristics identified earlier I argue that, if the recent upsurge in formal workplace mentoring reflects another transition in an enterprise's communication strategy, and aims to engage and retain individual employees, then organisations first need to identify and resolve some of the lessons learned from these communication practices undertaken in the past. In the next section, I compare mentoring with each of the ten characteristics that appear common to team briefing, quality circles and performance coaching.

Sustained Support is Required from the CEO and Senior Executives

Successful HRD initiatives rarely survive without the sustained support of top management and formal workplace mentoring programs are no exception. Part of the problem in gaining and retaining support for workplace mentoring at a senior level has been the increasing turmoil and instability of modern organisational life where the strategies of today quickly become inappropriate for the demands of tomorrow (Thompson 1995). Longer-term commitment to communication activities, such as formal workplace mentoring, requires a planned and sustained implementation of HRD strategy, sometimes long after the current CEO has moved. To counteract this weakness over 50% of sponsoring organisations appoint a director to oversee the mentoring scheme (Begley 2012).

In this study, we found that every CEO had a personal preference or technique for getting the key messages across and the findings revealed that CEOs were less likely to continue with a given communication strategy if their experiences had been negative in a previous setting. We also found that, not surprisingly, new brooms sweep clean in larger, vertically integrated organisations where CEOs are influenced by the needs of customers, suppliers and sometimes multinational parent organisations that have a defined policy on employee communications, which can include mentoring. Mentoring was more likely to endure when there was a perceived benefit to the business. When the CEO engaged with formal workplace mentoring programs, they frequently put themselves forward as mentors and those CEOs who had previously benefitted from mentoring, either formal or informal, were more likely to take part. However, the widespread infusion of executive support became problematic when too few volunteer mentors were matched with lots of mentees, especially when larger numbers of mentees saw an opportunity to engage with the CEO on a one-to-one basis and other volunteer mentors became second choice.

The Communication System is Formal and Organised

The literature indicates that informal mentoring is more enduring than formal mentoring and our findings support the notion that informal mentoring can and does take place in circumstances largely unknown to line managers. One respondent commented:

I think with any workforce you're always going to get some people that have got an interest in providing support particularly to younger employees to be able to share their experiences and their knowledge and assist them in advising them in problem solving and those sorts of things; but I think it's the leadership from a CEO is very important in regard to informal mentoring—I think certainly in our organisation I know that a number of our talent pool people meet with [the CEO] and have a chat to him, so I think that happens spontaneously—open door situation and certainly a willingness to be able to take the time to spend with people in a mentoring role. (V4)

Informal mentoring is a spontaneous process between two or several people who come together in an environment of mutual trust and respect. When the mentoring relationship has reached a state of maturity each member of the informal dyad moves on and the mentoring lapses, but often a new and more enduring relationship is formed. In contrast, formal mentoring programs are more artificial and can generate 'negative experiences' for the mentee (Eby et al. 2000, p. 5). These experiences include inequities such as favouritism, limited participation, abuse of power and other downsides that are not thought to be present in informal arrangements. In the above example, though reported as being informal, it is easy to spot the potential for disharmony because talented people who work close to the CEO have a clear advantage over others.

Unlike other formal communication processes, mentoring is largely a voluntary activity and, for the sake of lasting credibility, organisations must work hard to ensure their formal mentoring programs do not get tangled-up in negative issues, either perceived or real. On the upside, formality brings an air of openness to a workplace mentoring program, because of the planning implications for policy and practice. In the case of briefing groups and quality circles, the idea of formality, mass participation and regularity is a key requirement to maintaining a sense of equity and openness, and mentoring programs could learn from these ideals.

Successful Implementation Requires the Commitment of a Dedicated Project Coordinator

Formal workplace communication schemes of all varieties, including briefing groups and quality circles, require substantial planning and setting up; and this coordination role typically falls to someone in HR who has people-centred organisation skills and a passion for seeing the project succeed (Boags 2011). The amount of administration and planning involved in mentoring depends on the size of the program and the number of people involved. Coordinators are reported to perform a variety of tasks including organisation of training for participants, assignment of activities, provision of support materials and, above all, keeping stakeholders informed of progress, meeting key milestones and conducting evaluation or feedback activities. In the early stages of a project, this coordination role can be a full-time job, but later reduces to a fractional role once projects become well-established. Not surprisingly, the organisation's support of a coordinator is connected with the earlier assertion about CEO commitment. This issue was confirmed by a respondent:

So in terms of the organisational resources—the CEO commitment, the divisional management commitment—and in terms of resourcing, it definitely needs a coordinator/administrator to keep the wheels turning. So that's where my role—the coordinator role—fits into the program. I have ongoing contact with all the mentors and mentees just to keep up to speed as to how they're travelling—whether they're enjoying the program—if there's any issues—and we haven't had any issues around the relationships to date but that's understood—or it's explained in the workshops from both sides that if that is the case we can easily just manipulate the program to change the pairings around—we're happy to. (M7)

Communication processes in organisations, such as mentoring, are as much about maintaining relationships as they are about getting the messages across, so ongoing effort is required to urge people along. A report conducted by the Australian Human Resources Institute found that almost 70 % of mentoring schemes were directed by HR (Begley 2012) and not having a coordinator was seen as a major barrier to the sustained success of formal workplace mentoring programs. One respondent said, 'you need a coordinator and a budget and you need to make it very clear at the beginning about the expectations. That's why training and a [program] coordinator are absolutely required' (A6).

The Communication System Forms Part of a Broader HR Strategy

The relationship between workplace communication systems and HR strategy can be uncertain, especially when viewed through the eyes of an employee. Employees rightly ask whose interests are being served by taking part in the latest HR initiative for, without a perception of equity, people soon become disengaged and sceptical. In the case of TB and QC the communication activity is intended to encourage greater employee involvement in work-related issues, and coaching focuses on performance improvement, but in mentoring the outcomes are something quite different and more personal. So why are employees both excited and anxious when HR managers talk about mentoring? Part of the problem may come from a growing mistrust towards HR (Headlam-Wells et al. 2006) and an internal confusion within the profession. In recent years HR practitioners have found themselves caught up in an occupational tension and in a professional wilderness where they have become increasingly unclear about their role, or who they should be helping most—the employer or employee. Part of this tension arises because human resource development theory is reportedly underdeveloped (Sambrook 2009) and draws on the diverse academic disciplines of business, education, psychology and the social sciences to inform practice. Therefore, one is never really clear which direction a particular HR practice is following and much depends on the axiological standpoint of the individual HR professional in charge.

Furthermore, HR roles and responsibilities are ever-evolving and arguably reverting to their previously bifurcated functions—with human resource management (or personnel-related activities) doing something completely different from human resource development (training-related activities). In one study, HRM had readily adopted a corporate mindset in an effort to become more strategic, while HRD was increasingly devolved to operational line managers (Short and Harris 2010). In these

settings, it follows that formal mentoring programs might sit more comfortably in the mind's eye of potential mentees if the programs were couched in terms of personal development, rather than meeting the performance needs of the business, but for the sponsoring organisation the mentoring programs would only be tolerated if they were seen to add bottom line value. This duality of expectation separates mentoring from other forms of workplace communications and sums up a major challenge for HR managers, because for the CEO to engage both outcomes need to be achievable. Another challenge for HR is how to evaluate the benefits of a formal mentoring program due to the longer-term nature of obtaining any results. It is not possible to operationalise mentoring outcomes in the same systematic way as other communication processes and mentoring is perhaps more holistic in the way it contributes to the overall impact of workforce development strategies.

The Preferred Method of Communication is Face-To-Face and Regular

In the past nobody would have conceived that work teams could be briefed effectively over the telephone, or that quality circles could resolve complex problems from different, remote locations using a personal laptop device. Yet today we are seeing the demise of face-to-face interaction as smart technologies become fully integrated into workplace communications. Now project groups connect globally to share a wide range of diverse information. When advocating the benefits of TB in the early 1970s, Garnett (1973) asserted that people at work engaged better during face-to-face communications because they could check understanding much quicker and observe the body language of the person delivering the briefing. Surprisingly, in a high-tech workplace, these older traditions remain valued to the present day (Hallam et al. 2003; Hunt 2005), but what does this tried and tested perspective mean for workplace coaching and mentoring, especially in Australia where work teams can be geographically dispersed across several time zones? This study found that mentees needed face-to-face communication with their mentor, at least at the beginning, but were prepared to tolerate e-communication meetings later, once the relationship was established and only as a last resort.

Furthermore, although traditional mentoring has used one-to-one and face-to-face contact as the basis of communication, increasingly more use is being made of group mentoring, e-mentoring and mentoring on-demand rather than planned. These new techniques are challenging the fundamental concepts of mentoring, but claim to be highly effective (Bamford 2011; Emelo 2011). In this study, organisations already familiar with remote management practices were just coming to terms with the possibilities of virtual mentoring. One HR manager reported:

Yes, I think we need to explore that. There are lots of—there are an increasing number of options becoming available around how you can use IT. I think given our organisational layout with a lot of regional areas of employees who are our train drivers or who are out in fairly isolated areas, IT could be useful in terms of providing some sort of connection to people because it can be quite expensive trying to maintain a face to face. (Q9)

In sum, mentoring shares many of the characteristics of other communication forms, but is perhaps more amenable to a break in tradition, principally because only two people are involved.

Participation Requires Time off the Job

Increasingly, the cost of workplace development is measured not only by the direct cost of purchasing training products, but also the hidden costs of taking time away from the job. Committed organisations are thought to invest around 4–5 % of turnover on workforce development projects, but this level of assurance to training projects can be reduced when lower than planned operating profits prevail and business rationalisation programs are implemented (Toman 2009). Commentators suggest that training should continue regardless of short-term performance and for these reasons coaching and mentoring have become popular tools for developing people, not only because they can be undertaken on the job, but because they often do not require attendance at external training courses. The sensibility of this arrangement is debatable, but in Australia training courses frequently involve interstate travel and overnight expenses. To alleviate unwanted costs, mentoring programs are sometimes set up to take place exclusively out of hours, to avoid business disruption, but in practical terms this arrangement cuts into non-work commitments and planned mentoring meetings fall by the wayside. The study showed that formal mentoring programs were no different to other forms of workplace development insofar as they required professional development and facilitated training upfront to ensure participants were adequately prepared for the program and allowable time for mentoring meetings. In the case of formal workplace mentoring, the correct matching of mentor and mentee was found to be of paramount importance in ensuring long-term success and was therefore integrated into company training programs.

Training is Required to Partake in the System, Normally Provided by External Agencies who Claim Expertise in the Subject Area

In a similar way to TB and QC, the literature on formal mentoring highlights a need for systemised programs of implementation involving bespoke training for the mentors, mentees and support personnel (Arthur and Rousseau 1996). To meet these needs, a whole industry of training expertise and consulting organisations has emerged in the commercial marketplace, even though professional or international standards and codes of ethical practice on workplace mentoring remain scarce. In Europe, the International Standard for Mentoring Programs in Employment was established in 2003 to address this issue, but no such organisations exist in Australasia at the present time. The study revealed that, while many of these training organisations advocated the significance of planning, matching and selection of mentoring outcomes, they tended to focus on selling the benefits of mentoring and underplayed raising awareness of the negative experiences that often derail formal arrangements such as imbalances of

power, politicking, and poorly skilled or toxic mentors (Eby et al. 2000). In taking the critical line, I argue that formal mentoring programs are pedagogically different from the other workplace communication and training activities discussed in this chapter because the individual's need for equity, wellbeing and personal development are more pronounced. Mentoring programs put individuals at the centre of their own learning and therefore require thoughtful planning and implementation because both members of the mentoring dyad are putting their needs for self-actualisation, security and recognition on the line—what Field refers to as 'ontological interests' (2004, p. 215). These metaphysical needs are thought to transcend all other motivations and be less pronounced in team-centred HRD activities.

Knowledge Sharing and Regular Feedback are Essential Ingredients

Bozeman and Feeney define mentoring as 'a process for the, informal transmission of knowledge, social capital, and psycho-social support perceived by the recipient as relevant to work, career, or professional development' (2007, p. 731). Therefore, mutual trust and reciprocity within the mentoring dyad are important elements; however, informal arrangements have different characteristics to formal programs. Studies examining formal mentoring program characteristics (Ragins et al. 2000) suggest that formal mentoring programs should be designed to utilise many of the merits of informal mentoring and this includes the mentors' and mentees' voluntary participation and willingness to share information. The rule of reciprocity suggests that a mentor who earns his or her mentee's trust feels obliged to appreciate the trust by providing higher levels of mentoring support, instead of only meeting the mentor requirements intended by the organisation. Therefore the level of intimacy embedded within mentoring discussions and heavy reliance on reciprocity within a mentoring relationship may distinguish the process as something quite different to other forms of workplace communication; and therefore presents an enduring risk when formal programs fall into disarray.

A Performative Intent, or Underpinning Ethos of Improvement and Behavioural Change, is Embedded within the Communication Process

Perhaps the most striking feature of workplace communication strategies over the last thirty years has been the underpinning alignment with neo-liberal, performative or managerial ideology. According to Ball, 'performativity is a culture and mode of regulation that displays judgements and comparisons as a means of incentive, control and changed based rewards' (2003, p. 216). Historically, leadership and management are linked with communications processes (Garnett 1973), but critical HRD studies highlight the presence of power and hegemony in management-led activities, where employee participation turns out to be less equitable than it first appears or is presented (Fenwick 2004). The lower priority placed on immediate performance improvement in workplace mentoring is perhaps the major feature that

sets it apart from coaching, on-job training or quality improvement groups. Moreover, when formal mentoring programs become positioned solely to meet an organisational agenda, or to add value to the bottom line, they make a sudden and radical departure from their informal mentoring counterpart where equity and mutuality are deeply embedded in the DNA of mentoring.

Trade Unions can be Cautious about an Undisclosed Intent

Research conducted in the New Zealand manufacturing sector has revealed that trade unions are more positive about HRD-induced workplace communication strategies than might first be perceived, especially when the communication activities involve learning and development (Short 2008). However, to gain higher levels of engagement from unions, managers must include and involve employee representatives from the outset to ensure processes are fair and equitable for those concerned. For example, union representatives would be keen to assist with mentor selection and matching processes. Moreover, they would want to prevent the worst case scenario where an organisation engaged someone who was thought to be a suitable mentor, but later discovered that the mentor had insufficient skill or was unsuitable.

In the case of formal workplace mentoring, trade unions were found to use mentoring in the training and development of their own officials. Mentoring is included in the Certificate Level IV in Unionism and Industrial Relations; and in Australia the Tasmanian government included mentoring in its web-based information for human resource and union representatives. The appeal of mentoring over other forms of workplace communication among trade unions may be attributed to the non-judgmental, facilitative and confidential principles embedded within mentoring and the exclusion of an overt managerial or performative agenda mentioned previously.

Summary

In this chapter I have reviewed a number of perspectives on formal mentoring and situated the development of workplace mentoring initiatives in a historic context with other well-known forms of employee communication such as team briefing, coaching and quality improvement groups. The literature showed that HRD communication systems intended to inform and engage employees were not uncommon in OD strategies; some of them were fashionable for a while, while others have transcended time. In an era when workplace communication methods have become more individualised, cybernetic and 'just-in-time' I questioned whether workplace mentoring was just another silver bullet aimed at driving performative behaviour or something more altruistic and directed towards the wellbeing of employees. I found that mentoring shares common elements with ten features found in the other communication processes and I considered the pros and cons of mentoring against each point. However, unlike these other forms of team-based communication, mentoring

was found to recognise the individual knowledge workers needed, their personal development, psychological and social support, and, above all, an occasional requirement for longer-term guidance from a role model or significant other person who could help them to cope. Perhaps these deep-seated characteristics are the compelling reasons why mentoring concepts have endured for millennia and have adapted to today's post-industrial workplace, which sets them apart from other methods of communication.

More importantly, the growing popularity of mentoring in organisations may have connections with new models of workforce development. Workplace development is the latest terminology in a long line of professional titles given to education and training activities carried out in the course of employment and is characterised by learning in context across generational groups. Workforce development is holistic and embraces many HR projects, but it places individuals at the centre of their own learning and prepares them for meaningful work—characteristics not uncommon with mentoring.

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Chapter 9

Building Workforce Competencies through Complex Projects

Andrew Sense and Senevi Kiridena

Abstract This chapter illuminates the current theories and concepts concerning complexity and the project management workforce competencies necessary to deal with it in projects. It exposes the valuable, yet underutilised, opportunities complex projects may present to develop the knowledge and competencies of a workforce to successfully manage complexity within a project space and across an organisation more generally. The theoretical implications of this analysis imply that more research is necessary to establish a framework of competencies that relate appropriately to the levels of complexity within a project. The practice implications are profound since managing complexity in projects requires a more expansive and divergent set of practitioner skills that move well beyond the baseline ‘technically oriented’ project management skills set. In sum, this chapter highlights the current strengths and weaknesses of extant research and standards concerning complexity in projects and provokes discussion on developing a workforce that is more ‘complexity’ capable.

Introduction

Projects are embedded in most organisations as a means to ‘get things done’ effectively and to meet an array of corporate objectives. As such, the project management (PM) competencies of staff members to undertake projects are core to realising such goals. In the past in many organisations, project management has generally been viewed as linear and process-focused, requiring relatively short-term resource allocations and primarily concerned with meeting explicit and well-defined cost, specification and time deliverables. The skills required in that more simplistic frame of reference have necessarily been aligned to technique-driven matters. However, the effectiveness of the traditional positivist technique-based approaches to managing projects has increasingly been challenged in the light of greater recognition of the significance of human, behavioural and social dimensions in contemporary

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project-based undertakings. This is clearly demonstrated in major journals in the PM field, wherein the vast majority of research and publications are concerned with those attributes. In addition, given the now much wider range of significant and complex projects being undertaken across multiple fields of endeavour in organisations (e.g. organisational change and new product development projects), possessing or accessing appropriate PM competencies is increasingly a key strategic concern for organisations.

Until now practitioners have generally attained explicit PM competencies through participation in vocational and tertiary education programs, as well as through experience-based professional accreditation (in addition to practice experience). The bodies of PM knowledge produced by various professional bodies in the field of PM are mostly considered ‘standards’ or ‘guidelines’ to refer to, but importantly they also inform these education and accreditation programs. In more recent times, in response to the diverse range of projects now pursued and the high rate of project failures, or projects not meeting desired outcomes, the phenomenon of ‘complexity’ in projects has gained greater researcher attention. This research has generally attempted to explain what complexity is and how it manifests in projects and, indeed, what might be the requisite competencies needed to manage it. At this time, however, the various bodies of PM knowledge do not seem to be guiding or informing a sufficient response to this issue.

Moreover, as PM researchers such as Sense (2011) have posited, the skills and knowledge gained in singular projects is not only valuable within that space but also spans other organisational boundaries as the PM practitioner moves around and engages across an organisation and beyond it. In that way, the PM space becomes the generator of skills and new knowledge that may help transform the broader organisation—provided the project space is properly nurtured to achieve that. One of the initial difficulties is for an organisation to appreciate and embrace the notion that projects and project teams can be major sites and catalysts for workforce development. Secondly, it might also be difficult to observe that, within each project, there may be different layers of competencies necessary to effectively manage the levels of complexity involved. In any case, a ‘complex project’, so considered, presents multiple opportunities to develop staff through exposure and actions in engaging with it during the project lifespan. Concomitant to that, training and education programs could provide conceptual insights and degrees of guidance to practitioners seeking to develop their skills and knowledge on this topic. Therein lays a challenge for research to deliver sufficient insights on this topic to better inform educational programs and for industry to recognise and encourage the development of staff on managing complexity in projects.

As one step towards informing the development of a workforce capable of leading complex projects and dealing with business complexity more competently, in this chapter we offer a discussion of the concepts and theories about project complexity and the competencies necessary to engage with it in projects. We first outline the concept of complexity and then discuss how complexity has been embraced by the PM community. At this point we provide a tiered framework of project complexity based on alternative perspectives. We then proceed to examine the PM bodies of knowledge

(BOKs) with a particular emphasis on identifying the competencies required and the deficiencies within the current BOKs for dealing with the effects of project complexity. We then provide a chapter summary and concluding comments.

The Concept of Complexity

The term ‘complexity’ or the state of ‘being complex’ generally connotes the difficulty in understanding and describing something, whether it is an artefact, organism or a phenomenon. Within the realm of complex systems science, the concept of complexity refers to the behaviour of systems that cannot be represented by elegant mathematical equations, and the degree of complexity is often expressed in terms of the amount of information necessary to describe the behaviour of a system (Bar-Yam 2002; Mitchell 2009). These systems can be physical systems such as infrastructure networks, biological systems such as the human brain, ecological systems such as a rainforest or social systems in societies. Weaver (1987), in his classic article ‘Science and complexity’, referred to three types of problems: few-variable problems of simplicity that can be represented by mathematical equations; many-variable problems of disorganised complexity that are subject to the laws of statistical mechanics; and several-variable problems of organised complexity that cannot be solved using either of the two approaches above. The main focus of Weaver’s explanations, however, was on the problems of ‘organised complexity’, on which he claimed science has not yet concurred due to the number of variables involved and the nature of the interactions between those variables. The interpretations of the term ‘complexity’ found in other literature revolve around this third type of problem. Notwithstanding the many variations in the way the concept of complexity has been interpreted in different fields, there is some convergence on the point that complexity arises out of the emergent behaviour of a system that consists of components that interact in non-linear ways without being controlled by a central authority. This emergent behaviour is a result of those system components extracting information from their environment and using it continually to adapt and respond appropriately within their environment. This means that the behaviour of complex systems as a whole might not be directly inferred by the behaviour of their components. Another widely cited property underlying the emergent behaviour of complex systems is their dependence on initial conditions, or what is commonly known as the ‘butterfly effect’. In the following section we will consider how the concept of complexity relates to projects and PM practice.

Project Complexity

Many authors have argued that the PM competencies underpinned by the existing BOKs are inadequate to manage contemporary projects (Jaafari 2003; Pollack 2007; Saynisch 2010; Thomas and Mengel 2008; Winter et al. 2006). The scale and number of projects managed by an organisation at a given time, the alternative investment

arrangements and the array of stakeholders involved, as well as the level of accountability and scrutiny on major projects, present new challenges and requirements for senior PM practitioners (Edum-Fotwe and McCaffer 2000; Ingason and Jónasson 2009; Williams 1999). Thus, in the PM literature there are frequent calls to review the existing BOKs for their relevance or utility to be able to meet the PM competency demands expected in these uncertain and dynamic project environments. Such a call primarily rests on the following premises:

- Projects are becoming increasingly complex.
- There is increasing influence from a wide range of stakeholders.
- A significant proportion of projects have failed to meet stakeholder expectations (Baccarini 1996; Thomas and Mengel 2008; Vidal et al. 2011; Williams 1999; Winter et al. 2006).

Although there has been no conclusive evidence to support a causal relationship between the 'PM competencies' underpinned by the current codified BOKs and 'project performance' (Crawford 2005; Thomas and Mengel 2008), the PM competence of project managers is perceived to have a major impact on project performance (Crawford 2005; Morris et al. 2006a). In many contemporary projects, then, the necessity for practitioners to have more advanced competencies to be able to deal with and positively influence a range of complex and diverse issues within a project may clearly be more profound. Much of the recent discussion and debate on what constitutes such advanced PM, however, has revolved around the notion of 'project complexity'. Despite this perceived significance of the impact of complexity on project performance and the substantial research efforts directed towards studying project complexity, there appears to be no consensus on precisely how complexity relates to PM practice (Baccarini 1996; Geraldi 2009; Vidal and Marle 2008; Vidal et al. 2011; Williams 1999).

Project Complexity: Alternative Perspectives

Projects, by definition, are unique, one-time endeavours consisting of a large number of varied and interdependent activities (Gido and Clements 2009; Larson and Gray 2011). This basic definition itself implies the intrinsic 'complexity' (as per the dictionary meaning of the term: consisting of many different and interconnected parts) of project-based undertakings. Project complexity is often interpreted relative to human cognition and capacity to understand, explicate and manage a project. For example, Vidal and colleagues defined project complexity as 'the property of a project which makes it difficult to understand, foresee and keep under control its overall behaviour, even when given reasonably complete information about the project system' (2011, p. 719). Project complexity has been researched substantially in recent times, particularly in terms of conceptualisation, operationalisation and dealing with its effects on PM practice (Baccarini 1996; Remington et al. 2009; Vidal and Marle 2008; Williams 1999). The range of views expressed by authors

includes such assertions as ‘the ideas [of complexity] apply equally to small in-house projects as to large complicated programs’ (Weaver 2007, p. 2) and ‘they [projects] are truly complex [if] they have multiple structural elements interacting and changing as they progress’ (Whitty and Maylor 2009, p. 305).

A summary of the most commonly cited dimensions of project complexity and the aspects of each dimension that induce managerial complexity is provided in the following Table 9.1. Additionally, in italicised text under the aspects of each dimension in that Table, we provide a descriptor of how each dimension impacts on PM practice.

The more recent published work on project complexity generally reflects a view that a highly complex project consists of a large number of diverse elements interacting spontaneously in a dynamic operating environment where uncertainty impacts on project goals and methods. This interpretation is largely consistent with the properties and behaviour of complex systems introduced in the previous section. Linked intimately to that general perspective, then, more advanced PM may be considered as the art and science of adaptively engaging with a project’s various interacting elements, including relevant actors in its environment, in uncertain or dynamic conditions to deliver on project outcomes, as expected by stakeholders.

However, we consider such broad generalised statements about project complexity and associated PM definitions to be somewhat inadequate to inform PM practice. Instead, and drawing on the dimensions of project complexity identified in Table 9.1, we suggest that three levels of project complexity can be articulated, as briefly discussed below—these three levels are a useful way to appreciate or interpret ‘how’ a project is complex rather than simply whether a project is complex or not.

Projects as Complicated Systems

The literature often distinguishes ‘complex’ projects from ‘complicated’ or ‘large’ projects, the distinction between the two being the ‘nature of the relationships’ between the elements of the project (Maylor et al. 2008; Thomas and Mengel 2008; Weaver 2007; Whitty and Maylor 2009). For instance, large-scale engineering and construction projects are considered to be complicated projects, but they may not necessarily be complex projects. If the nature of relationships between various elements of a project is such that the interactions between elements are non-linear and this results in emergent behaviour of the whole system, then it is considered a ‘truly’ (or highly) complex project (Maylor et al. 2008; Whitty and Maylor 2009). Again, these are some of the properties of complex systems identified in the previous section. However, a complicated project can also induce managerial challenges depending on the nature of its structure and the interdependencies between its elements. ‘Structural complexity’ is the most widely acknowledged dimension of project complexity. It essentially relates to the physical composition and configuration of a project—namely, task variety or the degree of differentiation and the interconnectedness or the interdependencies between various subsystems or elements of the project—that

Table 9.1 Dimensions of project complexity and related aspects

Dimensions of project complexity	Selected aspects of each dimension that induce managerial complexity and a descriptor of how it impacts PM practice	Authors
Structural	Project size; differentiation (variety) and interdependency between project elements	Baccarini (1996); Maylor et al. (2008); Vidal and Marle (2008); Williams (1999); Whitty and Maylor (2009)
	<i>Dealing with the intricacy and messiness of the large number of different and interdependent elements</i>	
Technical	Technologies involved; methods adopted; scope and goals of the project	Bosch-Rekvelde et al. (2010); Remington and Pollack (2007); Turner and Cochrane (1993); Williams (1999)
	<i>Lack of knowhow and clarity due to the novelty in methods and technologies, and the ambiguity in goals and scope</i>	
Environmental	Location; market conditions; legal, political and industry landscape—which are beyond the control of the project team	Antoniadis et al. (2011); Bosch-Rekvelde et al. (2010); Remington and Pollack (2007); Vidal and Marle (2008); Weaver (2007)
	<i>Lack of capacity to predict and control the impact of external influences; non-linear progression of the project</i>	
Organisational	The composition and experience of the project team; the status/profile and expectations of stakeholders; strategic directions; project structure and management style; culture	Antoniadis et al. (2011); Bosch-Rekvelde et al. (2010); Remington and Pollack (2007); Weaver (2007)
	<i>Dealing with the turbulence caused by self-organisation and emergence of the project system due to internal forces</i>	
Change	The shifting dynamics within and between project elements	Cooke-Davies et al. (2007); Maylor et al. (2008); Remington and Pollack (2007); Saynisch (2010); Whitty and Maylor (2009)
	<i>Managing the continued adaptation and evolution of the project system in response to internal and external forces</i>	

can induce managerial challenges relating to dealing with intricacy and messiness (Baccarini 1996; Williams 1999). However, this is not considered a property of a truly complex system.

Projects as Complicated Systems in Dynamic Environments

Although structural complexity has been widely cited as a key dimension of project complexity, a number of authors have argued that structural complexity alone would not induce managerial complexity. Projects are viewed as ‘socio-technical systems’ (Taylor and Felton 1993) consisting of people, processes, structures and technology, which interact with other systems and actors in their environment. Therefore, in addition to the structural complexity of projects, the tightening life cycles of contemporary projects, dynamic project environments and the elusive stakeholder expectations may mean that:

- project goals may not always be clear or set firmly at the conceptual development phase;
- changes in client requirements may lead to changes in project scope and schedule; and
- when technical methods of developing products are not known at the outset, the fundamental building blocks such as work breakdown structures may be less applicable.

A number of authors have explained these aspects in terms of the impact of ‘technical complexity’ and ‘environmental complexity’ on managerial decision making and goal attainment, as caused by various characteristics of projects, referred to earlier, as well as the influence of a range of internal and external environmental factors (Bosch-Rekvelde et al. 2010; Vidal and Marle 2008). Technological complexity relates to the knowhow embedded in project tasks, methods or outcomes; and the environmental complexity relates to the factors that induce uncertainty or impact on the stability of the project. However, the extant literature does not discern whether or not the interactions between project elements and its environment are non-linear and result in emergence behaviour of the project as a whole, in the same sense as has been established in complex systems science.

Projects as Complex Adaptive Systems

Another emerging and, arguably, more radical perspective on project complexity emphasises that projects do display such properties as social interaction, emergence, self-organisation and evolution and, therefore, they should be treated as complex adaptive systems (similar to biological systems or ecosystems). For example, Remington and Pollack claimed that ‘most large and many small projects exhibit characteristics such as phase transition, adaptiveness and sensitivity to initial

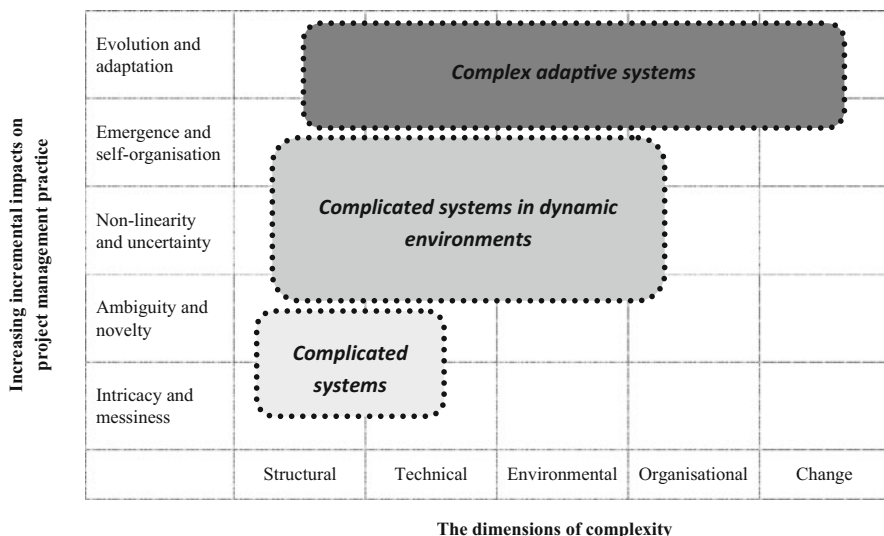


Fig. 9.1 A hierarchy of project complexity

conditions’ (2007, p. 3). Whitty and Maylor asserted that truly complex projects ‘have multiple structural elements interacting and changing as they progress’ and that ‘they are socially constructed entities’ (2009, p. 305). The significance of these properties is particularly discussed in relation to managerial complexity within the non-traditional domains of PM (i.e. outside the traditional areas of engineering and construction) such as organisational change and research and development projects. Moreover, a growing number of authors have claimed that conceptualising projects from the above perspective represents a fundamental shift away from the traditional school of PM thought towards a new paradigm of PM (Cooke-Davies et al. 2007; Remington and Pollack 2007; Saynisch 2010). Again, even within this stream of literature, the properties of projects that lend them to be classified as complex systems have not been well-articulated in theoretical terms (compared to what has been espoused in complexity science literature); neither have they been empirically validated.

The three levels of project complexity outlined above can be mapped on to the hierarchy shown in Fig. 9.1. This figure pictorially summarises how the various dimensions of complexity relate to our three derived levels of project complexity and also indicates their incremental impacts on PM practice as project systems become more complex. We note that what is most important and relevant to this discussion, however, is the managerial complexity induced by certain properties or characteristics of project systems and the way a project system interacts with its surroundings rather than the complexity of the project per se, or whether the project qualifies to be complex in an academic sense.

Having developed this conceptualisation of project complexity, in the following section we now move to reviewing the major PM BOKs with a view to evaluating their relevance to PM practice, particularly in terms of dealing with project complexity.

Project Management (PM) Bodies of Knowledge (BOKs)

Codified BOKs introduced by PM professional associations reflect the frameworks of knowledge or competency standards expected of PM practitioners to perform effectively in a professional capacity (Morris 2001; Stretton 2006). As such, the competency standards built into these BOKs form the basis for certification of professionals and the accreditation of education and training programs in the area of PM. They are also used as frameworks for guiding continuing professional development, as well as in the development of internal organisational PM methodologies. In this section, we present a summary of our review of the major PM bodies of knowledge. Although a broader perspective on bodies of knowledge or ‘stock of knowledge’ may infer the sum total of knowledge embodied in a variety of codified forms, our review was limited to the BOKs adopted by major PM professional bodies. We first summarise the structure and content of the selected BOKs and then provide a review of their relative strengths and limitations. This is followed by an account of the coverage of advanced PM competencies in these BOKs.

The Structure and Content of the Major PM BOKs

Since the publication of *A guide to the PM body of knowledge* (PMBOK® Guide) by the US-based Project Management Institute (PMI) in the mid-1980s, there have been a number of similar BOKs introduced by other PM professional associations around the world. The three prominent BOKs that are considered to be rather exclusive are: the PMBOK® Guide; the UK-based Association for Project Management (APM)’s BOK; and the Project and Program Management for Enterprise Innovation (P2M) standards promoted by the Project Management Association of Japan. While the PMBOK® Guide or its adapted versions are prevalent in many countries across the world, including in Australia, the APM’s BOK and its adapted versions are claimed to be widely applied in European countries (Morris et al. 2000, 2006b; Stretton 2006). In addition to the above three BOKs, the UK Office of Government Commerce has introduced a process-based PM methodology called ‘PRoject IN Controlled Environments’ (PRINCE2), which is claimed to be a non-proprietary best practice guidance widely used by UK government agencies (<http://www.prince2.com/what-is-prince2.asp>).

The PMBOK® Guide contains 37 competency elements covering nine core areas of PM knowledge: integration, scope, time, cost, quality, human resource, communication, risk and procurement. PMI has more recently introduced two other standards for program management and portfolio management, as well as an organisational project management (capability) maturity model (OPM3). Additionally, the PMI has published construction and government extensions to the PMBOK® Guide, as well as a suite of practice standards and frameworks. The APM’s BOK contains 52 competency elements organised under seven broad areas: context, planning, execution, techniques, business and commercial, organisation and governance, and people and the profession. The P2M standards includes competency elements organised under

11 knowledge areas: strategy, finance, systems, organisation, target, resources, risk, information, relationship, value and communication.

The EU-based International Project Management Association (IPMA)'s IPMA Competence Baseline (ICB) and the complex project manager (CPM) competency standards published by the Australia-based International Centre for Complex Project Management (ICCPM)—previously known as the College of Complex Project Managers—are the other two main BOKs cited in PM literature. ICB is a framework of reference comprising: 11 elements of technical competences for project management; 15 elements of behavioural competences expected of project personnel; and 11 elements of contextual competences applicable to projects, programs and portfolios—the framework is claimed to have been adopted by over 50 member associations of the IPMA. ICCPM's CPM competency standards are guided by 'nine views which define behaviours of complex project managers in the workplace, each of which operates as a continuum with a TPM/GM node and a CPM node' (ICCPM 2008, p. 8). The ICCPM claims that its CPM competency standards are 'based upon a complexity/uncertainty and emergence-based paradigm; use multiple views and dialectics to define behaviours that together provide insight and understanding; require a substantial level of underpinning knowledge; and define required special attributes' (ICCPM 2008, p. 12).

Morris and colleagues have noted that, although there are no major disparities between the three major BOKs referred to above, 'the APM BOK and P2M are much broader in conceptual breadth and scope than the PMBOK® Guide' (2006a, p. 713). Additionally, the professional competency standards adopted by the IPMA, ICCPM and the Australian Institute of Project Management (AIPM) are assessed with emphasis on demonstrable performance, whereas the competency standards of the other BOKs referred to earlier are assessed against the underpinning knowledge and skills. This distinction has been discussed in the literature in terms of attribute-based versus performance-based approaches to competency standards (Crawford 2005; Delo and Hepworth 2010). Attribute-based standards rely on knowledge, skills, experience and personality traits or behaviours that result in effective or superior performance of a person in the job, whereas performance-based standards emphasise performance demonstrable through workplace practices relevant to a particular professional or occupational area. The choice between the two may depend on the purpose and context of their application: for example, if the focus is on accreditation or selection of entry-level PM practitioners then an attribute-based approach would be applied with a view to identifying those with the highest potential, whereas if the focus is on accreditation at senior levels or performance evaluation, then a performance-based approach would be preferable (Delo and Hepworth 2010). However, in recent times it appears that most professional associations have been moving towards using combined attribute-based and performance-based assessment regimes.

Relative Strengths and Limitations of the Major PM BOKs

Ongoing reviews of the status and progress of PM as a profession in general, and the relevance and credibility of the various PM BOKs in particular, point to a number of

issues associated with the existing PM BOKs on multiple fronts. For instance, citing the work of Crawford (2005), Thomas and Mengel have noted that:

Professional associations the world over are introducing ever more project management standards and certification processes. . . yet the trend towards professionalism and the focus on standardisation come into question as the behavioural and personal competencies of project managers outside of PM standards appear to be more relevant for their workplace performance than the tools and techniques emphasised in the standards. (2008, p. 304)

The other major issues relating to the current PM BOKs cited in the literature include the lack of a sound empirical basis for supporting the BOKs; lack of a globally recognised framework of PM competency standards; lack of a considered approach to developing PM competency standards; and the influence of vested interests in maintaining existing standards (Crawford 2005; Morris et al. 2006b; Pollack 2007; Saynisch 2010).

In the recent past there have been numerous calls to extend the existing PM knowledge base to incorporate the human and behavioural aspects (interpersonal, motivational, communication, negotiation, conflict resolution and the like) of PM competence. The PMI's PMBOK® Guide, the most widely adopted standard, has been particularly criticised for continuing to focus on project execution at the expense of the human and behavioural aspects of PM (Pant and Baroudi 2008; Pollack 2007). For example, in critiquing the so called 'hard paradigm' of PM, Pollack (2007) noted the PMBOK® Guide's strong links to positivist philosophies that promote reductionist approaches and control with low emphasis on interpersonal matters and participation. He further questioned the efficacy of the PM tools and techniques embodied in the traditional BOKs in that they are based on basic assumptions of predetermined, clear and certain project goals that do not hold in projects with inherent uncertainty. Although the PMBOK® Guide has undergone several revisions or updates, since its introduction, critics have claimed that there have been no significant changes made to its structure and, arguably, much of its content (Crawford 2005; Morris et al. 2006b; Stretton 2006). However, a cursory review of the latest editions of the major BOKs referred to above indicated that the relevant professional bodies have been responding to these criticisms in recent times, and the current versions of most BOKs contain competency elements reflecting the human and behavioural aspects of PM. Additionally, a number of publications have also reported on work carried out to extend or examine the existing BOKs to address the domain-specific issues—such as in the construction, defence and public sector fields (Ayer and Bahnmaier 1995).

Irrespective of these recent amendments, Crawford has claimed that 'there is no statistically significant relationship between performance against the widely used [PM competency] standards in their entirety, and senior management perceptions of the effectiveness of workplace performance' (2005, p. 15)—thus suggesting a difference between the knowledge and practices valued by PM practitioners and those valued by senior managers. Perhaps reflecting that disconnect, a growing body of literature has also criticised the traditional reductionist approaches to managing projects for their limitations in dealing with the managerial challenges brought about by the emergent and dynamic nature of contemporary projects (Morris et al. 2006a; Pollack 2007; Thomas and Mengel 2008).

The Coverage of Complex PM Competencies in the Major PM BOKs

Although the major PM professional bodies appear to be responding to most of the criticisms referred to earlier, through the ongoing revisions of their BOKs, there is no evidence to suggest that the competencies advocated in the literature to manage complex projects are being incorporated into existing BOKs. Most professional bodies assess competencies of PM practitioners at different levels for certification. The BOKs invariably refer to project complexity, non-complex projects, complex projects, programs and portfolios. For instance, IPMA's competency standards for Level A certification (<http://www.ipma.ch>) specify the criteria for determining the complexity of a portfolio or program as follows:

- The number, importance, variety and complexity of active projects in the program or portfolio and number of project managers directed.
- Proposals to the overseeing body for decision and own decisions.
- The selection and development of project management requirements, processes, methods, techniques, tool, regulations and guidelines in the organisation.
- Influence on the selection, training and employment of project managers.
- Coordination of all projects of the portfolio or program and ensuring compliance to strategy.

These attributes, at best, reflect the structural, technical and environmental dimensions of project complexity, but fall well short of the characteristics or properties of the 'complex adaptive systems' described earlier in this chapter. A complexity index and project complexity are also widely referred to in the AIPM's competency standards, but the term 'complexity' appears not to have been enumerated as such.

By comparison, the CPM competency standards developed by the ICCPM have included an interpretation of complex projects as 'open, emergent and adaptive systems that are characterised by recursiveness and non-linear feedback loops' and a further description that 'complex projects:

- are usually adaptive system of systems;
- have high uncertainty in scope definition;
- are distributed;
- have ongoing environmental and internal turbulence;
- are implemented through wave planning; and
- are unable to be decomposed to elements with clearly defined boundaries' (ICCPM 2008, p. 4).

Although these characteristics reflect the properties of complex adaptive systems referred to earlier, Whitty and Maylor have severely criticised the CPM competency standards for not satisfactorily establishing 'any measures or threshold of complexity' (2009, p. 307); 'the definition [of complex projects] and the process [of developing the standards] was flawed' (p. 308); and 'the standards are not established on evidence-based practices' (p. 309).

All in all, the articulation of project complexity and the level of representation of competencies required to manage complex projects in the current BOKs are currently, at best, underdeveloped.

Project Management Competencies for Complex Projects

The literature suggests that professional bodies, government agencies, educational institutions, the corporate sector and the research community are all showing increasing interest in PM competence. This is evident from the heightened efforts to develop competency standards, qualification frameworks, educational programs and internal organisational frameworks, as well as scholarly contributions (Chen et al. 2008; Crawford and Cabanis-Brewin 2006; Delo and Hepworth 2010; Edum-Fotwe and McCaffer 2000; Rose et al. 2007; Suikki et al. 2006).

Major Categories of PM Competence

The extant literature on PM competence reflects five major areas of project manager competence.

1. Technical expertise applicable to particular domains of professional practice such as engineering, construction, defence, information systems, information technology, organisational change, research and development and new product development.
2. Managerial competencies of planning, organising, leading and control—across the key areas identified in the traditional PM BOKs and the knowledge of PM methods and tools.
3. Human and behavioural skills as opposed to the knowledge of PM methods and tools.
4. Advanced competencies to deal with the challenges in managing large projects, programs and portfolios, including strategic, political and legal issues.
5. Higher order conceptual skills, knowledge and competencies to deal with the challenges brought about by the complexity of projects and dynamic project environments.

Technical knowledge pertaining to specific areas of professional practice is generally considered to be a basic requirement for junior PM roles and, in most cases, entry-level project managers are technically qualified practitioners. However, it is widely agreed that, as a project manager progresses to senior ranks, what is really necessary is an appreciation of the managerial challenges brought about by the technical sophistication of a project rather than an in-depth understanding of the technical aspects per se. This notion is further supported by the fact that most contemporary projects are multidisciplinary in nature and, therefore, it is unlikely that a single

project manager will possess the breadth and depth of technical expertise to cover multiple discipline areas—besides, it is customary that project managers seek input from technical experts or consultants, as needed.

Managerial competencies outlined in the second category above are comprehensively covered in the traditional PM BOKs. The traditional approaches to managing projects are largely informed by the doctrines of ‘systems engineering’ and ‘control theory’. For example, the magnitude of a large project can be effectively dealt with by breaking it down into smaller more manageable work items using such techniques as work breakdown structures and responsibility matrices. Similarly, the interrelations and interdependencies between work items can be dealt with using the critical path method or program evaluation and review technique. Software tools also play a key role in the effective and efficient management of project information, particularly for coordination and control purposes. There is strong consensus that these perspectives, as well as a wide range of PM methods and tools, are adequately covered in the standard PM curricula offered by educational institutions, and that the vast majority of PM practitioners demonstrate these competencies well.

The third category of PM competency above emphasises the significance of a range of human and behavioural skills—for example, interpersonal, communication and motivation—commonly referred to as ‘soft’ skills. Many authors have argued that, while the competencies underpinned by the current PM BOKs are essential for PM success, it is these soft skills that differentiate high performing project managers from the rest (Alam et al. 2010; Edum-Fotwe and McCaffer 2000; Gillard 2009; Henderson 2004; Pant and Baroudi 2008; Rose et al. 2007). For instance, based on a review of the content of text books, journal articles and PM education programs in the US, Australia and Europe, Ingason and Jónasson noted the discipline’s increasing focus on ‘interpersonal competences, relationship management, resource management, and strategic alignment’ (2009, p. 59). Through a survey of PM personnel in south-east Queensland, Lei and Skitmore (2004) identified a wide range of soft skills, including communication, networking and stakeholder management. The effectiveness of alternative forms of leadership has also been the subject of interest in a number of empirical studies (Lei and Skitmore 2004; Loo 2002; Prabhakar 2005; Suikki et al. 2006). As such, there is a strong consensus that competencies relating to the application of PM methods and tools must be supplemented by a range of soft skills that are vital for PM success.

In addition to the competencies referred to above, senior practitioners who manage large projects, programs or portfolios are expected to possess advanced competencies demanded by a range of contextual circumstances comprising strategic, political and legal dimensions (Bourne and Walker 2004; Edum-Fotwe and McCaffer 2000; Hyväri 2006; Ives 2005; Patanakul and Milosevic 2008; Suikki et al. 2006). Remington and Pollack noted that ‘project managers are expected to deliver outcomes in increasingly ambiguous and politically charged environments’ (2007, p. 1). Based on data gathered from three case studies, Bourne and Walker hypothesised that ‘there is a need for project managers to be skilled in managing at the third dimension. . . [that is] to understand the need for, have the ability, and be willing, to “tap into the power grid” of influence that surrounds all projects’ (2004, p. 226). While recognising the

need to develop new PM competencies to deal with the challenges brought about by turbulent business environments, Suikki and colleagues (2006) emphasised the significance of skills such as leadership, self-management and organisational learning. Based on a survey of project managers in the construction industry, Edum-Fotwe and McCaffer (2000) identified a number of skills, including managerial, legal and communication, that are perceived to be essential for developing PM competency in a changing industry environment. As such, apart from the conceptual skills and more advanced competencies required in such areas as negotiation, conflict resolution and change management, senior project managers may also need to demonstrate such broad-based competencies as strategic insight, political acumen and legal acuity.

It is widely recognised that competencies underpinned by the existing PM BOKs which emphasise planning and control are inadequate to manage complex projects. Koppenjan and colleagues claimed that ‘the management of large engineering projects is often a combination of the focus on planning and control, and the ambition to be flexible given the complexity and uncertainties that characterises these kinds of projects’ (2011, p. 740). Some authors have even claimed that managing complex projects requires new or radically different ways of thinking and conceptualising, as well as competencies in new areas of practice. For instance, Remington and Pollack (2007, p. 2) advocated ‘systemic pluralism’ as a novel approach to managing projects in complex contexts, which they claimed falls under the school of ‘critical systems thinking’ that emphasises ‘theoretical and methodological pluralism’, while recognising the systemic nature of projects. The gaps between those competencies represented by the current BOKs and what is required to manage complex projects have often been expressed in such polarised terms as ‘the ability to predict and control’ versus ‘understand and facilitate’, and developing ‘trained technicians’ versus ‘reflective practitioners’ (Bosch-Rekvelde et al. 2010; Crawford et al. 2006; ICCPM 2008; Jaafari 2003). The CPM competency standards developed by the ICCPM, for example, have highlighted higher-order conceptual skills such as the ability to identify the underlying patterns in rather random paths followed by the behaviour of complex systems and the importance of viewing problems using multiple metaphors and dialectics (ICCPM 2008). Thomas and Mengel (2008) have emphasised the importance of a wide range of competencies, including shared leadership, social competence, emotional intelligence, skills in organisational politics and the importance of visions, values and beliefs. While acknowledging the value of traditional PM tools in situations where project goals are clear and remain relatively stable over time, Remington and Pollack (2007) have proposed a suite of tools for complex PM—such as causal maps, target overrun cost and temporal cost–time comparison—from which managers can choose, depending on the source of project complexity. Taxen and Lillieskold (2008) have also explored the role of alternative PM tools in managing integration and critical dependencies in projects under what they called ‘turbulent and complex circumstances’.

Summary and Conclusions

Based on our transverse of the extant literature on project complexity, we have presented and described three levels of project complexity—complicated systems, complicated systems in dynamic environments, and complex adaptive systems—in opposition to any singular universal definition. An evaluation of the current PM BOKs against extant literature on complex PM found that a range of complex PM competencies discussed in the literature are not represented in the widely adopted PM BOKs. The most prominent complex PM competencies discussed in the literature reflect the knowledge and understanding of advanced concepts relating to systems thinking and complexity theory and higher-order cognitive skills required to deal with the managerial challenges brought about by the ‘emergent’, ‘adaptive’ and ‘dynamic’ behaviour of complex projects. We also noted that, in recent times, most PM professional associations have been responding to long-running criticisms of their previously limited focus on traditional approaches to PM by incorporating competency elements representing human and behavioural aspects into their standards. The conception and issues about PM complexity outlined in this chapter may help practitioners, and project management-based organisations in particular, to reassess and interpret their complexity training and development needs—ultimately leading to the deployment of targeted and customised education and training options on this topic.

In effect, the current coverage to this point within the well utilised BOKs (and other sources) on the issue of project complexity is more centred on exhortations about the need to recognise complexity and to do something about it, rather than to explicate a set of empirically derived competencies that may better guide the understanding and actions of PM practitioners. What is most pertinent for practice development then is that these guides and literature are currently insufficient for this educational task. This indeed may be a timing issue where research will ultimately catch up with the world of practice. Secondly, developing a PM workforce that is capable of planning for, recognising and executing for complexity that is appropriate in their circumstances is a worthwhile goal that fuels project success, but as yet there is no clarity around the set of competencies and processes actually required to achieve such outcomes. Thirdly, if one views the project workplace as serving as an epicentre for staff development, projects and their complexity issues represent a significant learning and growth opportunity for individuals. Therein, higher-order competencies development (involving knowledge, skills and personal attributes: Crawford 2005) not only serves the immediate demonstrable needs of the projects at hand, but translate across the organisation as those persons move around and integrate their activities within the organisation. Thus the project workplace may also serve as a significant learning and development entity (Sense 2009) that helps transform the individuals involved and the practices of an organisation over time.

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Chapter 10

The Developmental Role of Competence Assurance

Liza O'Moore, Lesley Jolly and Lydia Kavanagh

Abstract Competence assurance (CA) is a process of ensuring that the workforce is able to carry out its work in a safe and competent manner. It can entail disruptive and expensive regular assessments of workers' performance, require employers to 'backfill' positions during the process, and provide little obvious direct benefit for the business. It may not provide accurate assessment if workers are withdrawn from duties for assessment as their performance obviously cannot be the same as under working conditions. If workers are assessed *in media res* there are issues around the potential observer effect on assessment outcomes. Employers and workplace assessors need ways of assessing performance that accurately target what is of interest with minimum disruption and risk. However, we will argue that the CA process represents an opportunity lost in terms of workforce development, if what is of interest is narrowly defined as present job skills with little attention paid to workers' competencies as a whole. The key theoretical issues to be addressed here relate to authenticity in assessment in workplace training and include consideration of how competence/competency is defined. We consider how to achieve authentic assessment in safety-critical workplace settings in a way that will allow for targeted workforce development in the future. A change away from current practices to portfolio-based and 360-degree assessment has the potential to describe more accurately where skills and deficits lie, help companies identify personnel with needed competencies and provide relevant support for their development within a chosen career path, and to help workers identify their skills and goals and how they may be pursued within the industry/company.

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Introduction

In many safety-critical jobs and professions there is a need to ensure that everyone in the workforce maintains their ability to perform their work to acceptable standards. In some industries, external authorities require employers to use standardised competence assurance processes that check individual performances and give assurance to the authorities that the workforce is competent. In this chapter we draw on a study of one such competence assurance system in an externally regulated industry, Australian rail. This industry invests heavily in competence assurance (Anca 2007) and the issues involved provide food for thought for others thinking about workforce development.

In this chapter we draw on the results of a project in the rail industry that was based on a multi-site case study of three major rail operators, an industry-wide survey to confirm the major findings of the case study, and a Delphi panel consultation with industry and educational experts to articulate recommendations (O'Moore et al. 2010). We examined the full gamut of competence management from choosing the right recruits, through to training programs, and on to ongoing competence assessment processes. This included 21 days observing training, assessment and routine revenue-producing drives and 25 h interviewing industry managers, 5 h with assessors and 2 h with drivers.

In this chapter we reflect on two issues that both the literature and our own field work identified as significant problems in competence assurance: defining competence and reliably assessing competence. We argue that shifting the emphasis from complying with regulations to developing a workforce helps clarify and deal with these issues.

Competence, Competencies and Workforce Development

There is so much confusion surrounding the concept of competence and its relation to competency or competencies that it is impossible to reconcile all the different ways that the term is used (Winterton 2007, p. 334). The origins of the term 'competency' are relatively recent, dating from Boyatzis's (1982) book, *The competent manager*. The term gained popularity with consultants in the late 1980s; this popularity, however, failed to bring clarity to the term. Boyatzis defined competency broadly as 'an underlying characteristic of a person' (1982, p. 21). The term was used interchangeably for a 'motive, trait, skill, aspect of one's self-image or social role, or a body of knowledge which he or she uses' (p. 53). It has thus come to be used as an umbrella term to cover almost anything that might directly or indirectly affect job performance. The initial ambiguous definition has not been significantly improved on; Burke defined competencies as 'discrete elements or activities' (1989, p. 10); Drejer stated that competencies are intangible resources that are necessary for reaching a 'sustainable competitive advantage' (2002, p. 65); and according to Rothwell competencies are the reason 'why standardized intelligence tests did not predict job success' (2005, p. 82). These authors seem to be saying that competency is

not just a matter of inherent attributes like intelligence but that it also relies on learning, experience and context. In our work, we have adopted a definition of competency as ‘the set of behaviour patterns that the incumbent needs to bring to a position in order to perform its tasks and functions with competence’ (Woodruffe 1993, p. 29), where competency may include innate attributes, prior learning and experience.

An essential distinction is between aspects of the job at which the person is competent (competence), and aspects of the person that enable him or her to be competent (competency) (Woodruffe 1993, p. 30). Competence assurance is then concerned with their ability to perform the work tasks currently expected in their position. The distinction between competence and competency becomes significant if we understand workforce development as a matter of finding ways to support the development of workplace skills (AWPA 2013), some of which may not be needed to demonstrate competence at current tasks but instead for the next step on an employee’s career path or to meet changes in workplace and business. Obviously it is not just the skills needed for current tasks that will be of interest but the potential for performing new and different tasks. Even in terms of immediate tasks, the difference is between compliance with minimum standards of performance and striving to improve and excel. It may not be just the competencies and competences of workers that make the difference, but, as Winterton (2007) noted, the whole context in which competence assurance takes place, including, crucially, the assessment practices used.

Winterton (2007, p. 334) reminded us that the competence-based approach in training is driven by five factors:

1. Technological innovation and demographic changes that increased the importance of adaptive training and work-based learning.
2. The need to replace supply-driven, traditional education systems with demand-driven models.
3. Lifelong learning policies stressing informal and non-formal learning and the accreditation of experience.
4. The social value of such recognition of competence, irrespective of the route of acquisition, for those who have had fewer opportunities for formal education and training.
5. The potential of competence-based approaches to integrating education and training, whilst aligning both with the needs of the labour market.

The emphasis here is clearly on relevance and flexibility in training as the basic rationale for competence-based approaches and the last factor in particular speaks to workforce development possibilities. Winterton however was critical of many examples of the approach for ‘neglecting socio-cultural contexts, and . . . creating abstract, narrow, and oversimplified descriptions of competence that fail adequately to reflect the complexity of work performance in different organizational cultures and workplace contexts’ (2007, p. 342). Competences are centred on the individual and on single, often simplified, performances but constructivist and interpretative approaches view competence as a function of the context in which it is applied (Dreyfus and Dreyfus 1986). Interpretative approaches acknowledge workers’ tacit knowledge and skills (Polanyi 1967), and these may be overlooked if competence is treated as context-free because work practice seldom matches formal job descriptions. It may be tempting to discount or ignore these complexities when defining competence, but

3.1 Selection Criteria

On the basis of the evaluation of current and future train driving demands, it is recommended that the following selection criteria should be adopted:

- Attention.
- Vigilance.
- Train Handling Aptitude.
- Decision Making.
- Trainability.
- Communication skills.
- Conscientiousness.
- Rule Compliance.
- Achievement Need.
- Emotional Stability.
- Tolerance of working alone.

Fig. 10.1 Selection criteria for train drivers suggested by Competence Assurance Solutions Ltd in a private report to the industry

tacit competencies, even of so-called 'unskilled workers' (Kusterer 1978), can have a determining impact on the success of an enterprise (Flanagan et al. 1993).

In our study, the differentiation between competence and competency was most clearly visible at the recruitment stage. While there was some variation in the details of recruitment across the industry, there was significant agreement about the major parameters. In particular, we found general agreement on a list of attributes that should be tested for in aspiring train drivers (Fig. 10.1).

The existence of the attributes in potential recruits was determined by standardised validated psychometric testing, either computerised through systems such as the Vienna Test System (VTS) (Schuhfried 2009) (see Chap. 16), or in pen and paper tests. The psychometric tests assess a range of psychomotor, personality and cognitive abilities that are judged to underpin the selection criteria. Here we can clearly see the mix of competence (train handling aptitude) and competency (communication skills) alluded to above. While psychometric testing can make claims about the existence of some competencies, all of the companies we worked with tested their applicants in one of three other ways as well: computerised tasks, extended behavioural interviews using individual and team role plays, and standard interviews.

The main advantage of a computerised test system is that response times can be measured, psychomotor tests can be included and detailed results can be compiled quickly and transmitted electronically, but the information they obtain about candidates is similar in kind to that gained in behavioural interviews in many cases. In the behavioural interviews we observed, extended use was made of role play to examine not only how well applicants communicate, but their potential for working in a team and handling pressure. However, the more common practice is to just ask the applicant in a face-to-face interview to describe incidents in the past where they have worked in teams or been under pressure. In these situations, assessors are proceeding mainly on an impression of the applicant's competencies rather than the more objective assessment of competence seen in the role plays. It seems fair to assume that these different methods produce different kinds of information about applicants with different

amounts of detail and certainty. If businesses are to know where the talent and skill lies they need to identify relevant attributes early and track them over the career.

Competencies label the behaviours people need to display in order to do the job effectively, such as sensitivity; they do not label the job itself, such as duty manager. Any job can be understood as a set of deliverables, outputs or roles, each of which requires a number of individual competencies. Some lists of competences used in assurance processes confound these two by putting together what people must be able to do (e.g. react correctly to an emergency situation), with what they need to do it effectively (e.g. decision making skills and ability to handle pressure) (Boyatzis 1982, p. 71). The result is a set of competency dimensions that are not independent. This creates problems when the list is put to use, for example, as assessment criteria. If the list includes both competencies and job roles, the team of assessors may be unclear about the particular competence to credit with a particular piece of behaviour. In turn this will disrupt the validity of the assessment (Woodruffe 1993).

The differentiation of competency and competence is thus more than ensuring that the correct terminology is used, but integral to the ways these terms shape best practice in competence assurance, and affect the potential for workforce development. As well as identifying whether workers can display competence at current tasks, competence assurance processes that pay attention to competencies can help keep track of the potential in the workforce. For instance, in many rail companies senior roles in health and safety, training and management generally are occupied by people who were taken into the industry as train drivers using a different set of skills. According to at least one manager, it would be advantageous to know from the outset which recruits are likely to be best suited for which future roles. So identifying and tracking competencies has the potential to benefit both business and worker. Valid, reliable and well-targeted assessment practices are clearly central here but there is much evidence to suggest that they are far from easy to attain.

Competence Assurance

Our research showed that competence assurance was typically used in the rail industry for:

- recruitment (see below);
- assessment during and at the end of training; and
- ongoing performance assessment.

Across the industry, the routine model for continuous competence assurance included:

- several observations of driving during the first year after initial qualification;
- observations of driving at two-year intervals (in the majority of cases) with oral questions probing underpinning knowledge thereafter; and
- some combination of refresher courses, classroom tests and performance management interviews supporting the biennial observations.

All of the companies use observation of drives as their primary mode of assessment. These observations are supported by oral questioning to check underpinning knowledge and the extent of this questioning is usually dependant on what the assessor decides the driver needs to clarify.

This combination of observation with questioning of underpinning knowledge appears to be quite common in workplace assessment, but brings with it some serious validity and reliability issues.

Assessment Issues

Having set the scene in terms of competences, competencies and current practice, we should now look at assessment issues. Planning workforce development over an employee's career path would be daunting because we cannot be sure we know what skills will be needed say ten years from now. But that ten-year target is accessible through small increments starting from where we are now. So workplace assessment needs to establish how well people are using their skills in the present and what the whole range of present skills is, so that they may be called on as circumstances change. Assessment, in other words, has to identify the right attributes and then give a true and useful picture of those attributes in terms of the skill requirements of the company.

Identifying Relevant Training and Assessment Targets through Risk-Based Training Needs Assessment

Western society is ever more concerned with risk and responsibility (Beck 1992; Harthorn and Oaks 2003; Robertson 2001). For the rail industry this can be seen in the changing attitudes of those with regulatory oversight in recent decades. In 1977 the UK Chief Inspecting Officer of Railways argued that less could legitimately be spent on rail safety. In his view, the level of rail safety at the time was 'an acceptable one, and sufficiently above the minimum standard acceptable to public opinion to allow the occasional serious accident to occur without undue reaction' (Hood 1996, p. 142). He concluded that some relaxation of the current safety requirements, with consequent cost savings, might be made without a significant lowering of safety standards. Such views and conclusions would not be acceptable today and over the succeeding decades the emphasis has shifted from a concern with the reliability of equipment (Glendon et al. 2006) to the use of quantified risk assessment techniques to rank the risks posed by fire, collision and other threats (Tran 2003, p. 129). Safety is seen to be paramount and the evidence shows that resources tend to be diverted disproportionately in response to the last safety breach, rather than proactively in a principled way. Competence assurance processes attempt to cover all key

competences but are restricted by the reliance on observation of routine work which by definition rarely includes rare and risky situations.

With this in mind, the criteria by which workers should be assessed will depend on the nature and extent of risk (whether safety risks or business risks) associated with the work, and this has led to the development of risk-based training needs assessment (RBTNA). A training needs analysis or TNA is a systematic exploration of the way things are and the way they should be and is the starting point for the decision about an intervention or investment in human resource development. A TNA is conducted to identify training goals: areas of knowledge or skills that training should accomplish with learners in order that they can meet organisational goals (usually in terms of a performance standard). Practically, this requires organisations to accurately identify and describe current competencies and competences and required future or best practice competences.

Anca recommended that ‘risk based prioritization should be applied not only to initial training, but to competence assessment and assurance as well as ongoing refresher training’ (2007, p. 295). He went on to list why and when an RBTNA should be undertaken:

- creating new job roles;
- changes in roles or structural re-organisation;
- changes in systems, processes, or equipment;
- proactively for improving job performance; and
- reactively for responding to an incident where performance was implicated.

By recognising the high-risk areas and the skills required to allay those risks, personnel can be selected based on their competencies to best mitigate the risk. This risk-based training analysis, therefore, ‘allows optimal use of money and resources’ (Taylor et al. 2004, p. 511) and can potentially form part of workforce development, as can be seen from the above points.

An RBTNA is based on task analysis for each job that identifies safety-critical aspects of the performance and allows for training and assessment to be appropriately weighted on that basis. Tasks may be specified in terms of technical skills, non-technical skills, knowledge, and technical and non-technical behaviours. There is some debate over the degree of inference necessary to get from observed behaviour to technical or non-technical skills, but generally skills are held to be demonstrated by performance of tasks. Tasks can then be rated according to their degree of difficulty, importance and frequency as in routine risk assessment procedures. In the companies we observed, a low, medium, high rating scale was used and ratings were arrived at through observation by ergonomists and others and through consultation with subject matter experts. This detailed rating system not only defines what needs to be in training and assessment packages but also what weighting each task needs to be given. This is intended to avoid the situation where training focuses on the most common elements of the job at the expense of the most important, or where the last crisis drives future action. However what constitutes an appropriate level of specificity in task analysis is not self-evident and judgements must be made by

subject experts and specialists such as ergonomists about how much to mandate according to the type of job and the context of performance. For instance:

If you've got people who are working in an emergency job, then you wouldn't want to break the task down too much, because it takes away the whole adaptability that they need to be able to do it. So you almost know the function, recognising the fact that actually the non-technical skills will cover all the decision making and adaptability and so forth that they need to be able to do that. (interview no. 1, 7 October 2009)

This tension between job description and the relevance of underlying abilities or competencies, which are harder to specify, has become obvious as more RBTNAs have been done and their results implemented in training. Despite the detailed rating system, there is still a tendency for certain parts of the job to get more attention either because of their frequency or because of their associated risks, while other less obvious aspects of routine tasks may not be sufficiently addressed in assessment and training. One person who has worked with the RBTNA system described it thus:

The report documents . . . technical skills that we saw most of, the same with the non-technical skills and knowledge, so people can start to get an idea of what this job focuses on. In addition to that we will talk about the highest rated task that they have, the scariest task that they have. Quite often you'll find that there's one large task that keeps repeating, keeps repeating, and so that becomes the focus of the training . . . lots of people can be taught how to do something; the difference is whether they do it well, whether they do it professionally. It's all down to their nontechnical skills and how they implement that into actually performing the technical skill. So for example, every driver could jump on the intercom and go, 'Guard, I need you to do this, this is going on'. Other drivers will jump on and they create a real bond with their guard and really work well with them, and that kind of sounds just simple communication. (interview no. 2, 7 October 2009).

The output of an RBTNA can be tailored to a range of uses including the development of higher-level integrative skills in the workforce.

Plenty of RBTNAs are done where knowledge and non-technical skills are completely ignored, and the technical skills are brought out like, 'you should train the technical skills like this, this and this', whereas the real juicy bits of data are all about where the developers can integrate the technical and non-technical skills and the knowledge and develop more of a story about what people are doing, perhaps from a higher level than rather than every single task. (interview no. 1, 7 October 2009)

In other words the RBTNA forms a basis for training and hence assessment that has a tendency to focus on manual skills of job performance or competences. Those are of course important and should not be ignored. However, the subtleties of good performance arise from competencies that are not always identified in the RBTNA. Instead, assessment tends to focus on what training has delivered in terms of knowledge, skills and attitudes. However, the RBTNA system could be useful in workforce development if these issues are understood and the system is complemented by attention to the higher-level tasks mentioned in the last excerpt of interview.

A major problem with competence-based assessment is the implicit assumption that all stakeholders, assessors, managers, trainees, governments, unions and

industries accept and agree with the competences. Managers and line workers may well disagree on what is required and expected from vocations and what counts as competent performance (RSSB 2006). The assumption of competence-based assessment is that competences are so clear and descriptive that every stakeholder understands and identifies with the competence similarly; however in practice this does not often occur (Wolf 1995).

Actual Assessment Targets

Cognitive learning, related to the understanding and use of new concepts (knowledge), may be contrasted with behavioural learning, related to the physical ability to act (skill) but each may depend on the other. Welford (1968) defined skill as a combination of factors resulting in ‘competent, expert, rapid and accurate performance’ and regarded this as equally applicable to manual operations and mental activities. Welford’s (1968) work demonstrated how actions are selected and coordinated at different levels of skilled performance and the conditions of practice and training that facilitate the acquisition and transfer of skill. Fitts and Posner (1967) developed a three-stage framework for skill acquisition involving:

1. a cognitive phase of understanding the nature of the task and how it should be performed;
2. an associative phase involving inputs linked more directly to appropriate actions and reduced interference from outside demands; and
3. an autonomous phase when actions are ‘automatic,’ requiring no conscious control.

Anderson (1983) refined this framework by creating declarative and procedural phases to correspond to Fitts and Posner’s (1967) cognitive and autonomous phases, but replaced the intermediary associative phase. In its place, Anderson (1983) argued that there is a continuous process of ‘knowledge compilation’ involving the conversion of declarative knowledge (or concepts) into procedural knowledge (or skill). Proctor and Dutta argued that skills are ‘goal-directed, well-organized behaviour that is acquired through practice and performed with economy of effort’ (1995, p. 18). This school of thought, in which declarative knowledge precedes practice, has been influential in theories of skill acquisition and hence vocational training and has led to the teaching and assessment format that we observed in the rail industry in Australia but which is also found in many other workplace training contexts. Typically, trainee train drivers spend blocks of time (usually weeks) in the classroom, interspersed with time on a train under supervision. The acquisition of the declarative knowledge is therefore liable to be separated in time from the practice needed to turn that knowledge into skill. This is not uncommon in training that alternates blocks of time in a college or training organisation with time on the job.

Note 1: For each independently braked rail vehicle less than the required number, three rail vehicle's handbrakes will be required to be applied behind the operational independently braked rail vehicles to hold a loaded train stationary on the maximum grade.

Fig. 10.2 Excerpt from *Testing of trains* manual, Queensland Rail

Exercise 8.2

Write THREE reasons for establishing radio communication with the Locomotive Driver BEFORE shunting commences.

1. _____
2. _____
3. _____

Fig. 10.3 Excerpt from freight shunting handbook

It is commonplace for trainees to be exposed in the first instance to classroom sessions that deal very largely in declarative knowledge only. Extensive printed materials are provided including manuals of detailed operational rules in some cases. Figure 10.2 is a sample from one such manual.

Material is delivered in a largely declarative rather than interactive style and immediately assessed within a very short time span. For instance, one manual on signals was 156 pages long and taught and assessed within 2 days. Manuals are typically supported by workbooks that summarise the material to be learned and include 'exercises' such as that in Fig. 10.3. Assessment materials are usually short-answer questions of this type and may in fact be exactly the same questions as used in the workbooks.

This process may look like an example of the move from declarative knowledge to practical skill and it fits in with the railways' (much criticised) reliance on rules to guide behaviour. However, it has been noted that this reliance on rules has the effect of deadening risk awareness (Hopkins 2005, p. 67), an important competency. There are questions, then:

- to what extent does such a training format deliver the most competent workers; and
- how well does such an approach fit with the competencies trainees bring with them?

In the rail industry, trainees are likely to be individuals with only moderate previous success in classroom situations and a preference for 'hands-on' learning styles (RSSB n.d.), and this is likely to apply to many across the VET sector. For those with no previous experience of the industry they enter, a context for the declarative knowledge delivered as described above is lacking, potentially providing a further bar to meaningful learning and self-development. So training is likely to suffer from a

tension between the didactic delivery of what is often called underpinning knowledge, and the necessity to gain experience in the practical accomplishment of the work.

This is an important point as this tension is likely to appear in assessment also, with knowledge or cognitive skills assessed by traditional styles of test or examination, in contrast with practical demonstration of performance. This extended in our study even to the regular competence assessment that train drivers go through throughout their working lives. In one company, drivers were regularly taken off roster for two days of competence assurance testing which included pen and paper and computerised tests as well as a simulator drive, but it was far more common for drivers' competence to be assessed through observation of performance during normal duties. While being observed, a driver might also be asked questions to reveal his underlying knowledge of 'what to do if . . .' or 'why do we do it like that?' While we never saw a case of a driver being expected to repeat complicated rules such as that illustrated in Fig. 10.2, there was often a dimension of rote-learning repetition in such questioning. It is certainly doubtful whether being able to repeat emergency procedures equates to being able to carry them out (ORR 2007).

There are therefore some problems with competence-based assessment that focuses on single or small numbers of demonstrated performances that are equated with some or all aspects of the vocation (Wolf 1995), since many of the worker's competencies are not adequately assessed or even addressed. The purpose of the assessment is often only to ensure that individuals can perform to the standard required (Fletcher 2000). The thinking behind this kind of competence-based assessment is that assessment is so aligned with the outcome required that the assessment measures achievement and outcomes accurately. In comparison, traditional paper-based tests may not assess the required outcome because they measure knowledge and not skills (Wolf 1995). But no matter the assessment type, the point is that trainee competencies that could aid workforce development are rarely explicitly assessed and probably only occasionally accidentally assessed.

Turning now from trainee assessment to ongoing assessment, Fig. 10.4 illustrates the kind of competence assurance instrument used in assessing drivers' competence. These checklists come in thick books which the assessor is supposed to complete during the duration of a drive (which may be only 20 min long). They prompt the assessor to watch for pre-determined behaviours and ask questions about underpinning knowledge. Spaces are also left for comments but, owing to the pressure of time, comments are rare and ticks are used instead, even though the greyed out column indicates that a written assessment comment is required. Tasks are broken down into many sub-tasks in an attempt to objectify the criteria but the emphasis is all on competence and there is no room or focus on competencies. The opportunity for workforce development is slight.

In many workplace situations assessment of learning occurs, rather than assessment for learning (Birenbaum et al. 2006) which might identify strengths and weaknesses that could be relevant for future development. In the rail industry, many small pieces of assessment occur during the training of a new driver and subsequently across their driving life. These assessments are intended to test knowledge gained

Competence element	✓	What you expect to see or hear	UPKQ	What did you see/hear (or answer to UPKQ)
9. Adhere to indications and warnings. (Priority 1)		Constantly checks road for caution and warning signs.	What was the speed on the warning sign we just passed?	
		Drives the train according to speeds indicated.		
		Reduces speed, sounds whistle and becomes increasingly vigilant when running over detonators according to number of dets placed.	What do you do if you run over 2 detonators?	
		Adapts and responds to unexpected change as it occurs.	What does a green flag waved side to side mean? When can normal track speed be resumed after passing a caution sign?	
Coaching/feedback provided				

Fig. 10.4 Excerpt from drivers' competence assurance checklist

and the competence of the driver with reference to national standards, not to direct or assist development of the driver's competencies. Having said that, we did observe instances where drivers were coached in better practice by their assessor (an example of developmental assessment for learning) and in one case a driver challenged an assessor's understanding of the procedure; a lively debate ensued and the assessor promised to consult with others in the training centre in order to amend the manual to meet current best practice. This kind of two-way learning is clearly helpful for workforce development in that it incorporates current workplace experience into standardised policies and procedures. However, there was no ability in this instance to capture the competencies shown by the person being assessed when they brought their experience to bear.

Levels of Competence

As in many workplace training contexts, assessment of train drivers, whether during training or during ongoing competence assurance assessments, is rated on a 'competent/not yet competent' basis. That is, the worker is deemed to have shown themselves competent at the task, or has not yet met that level of competence. Although tasks may be broken down into different aspects, as Fig. 10.4 shows, this still does not really capture where the worker's competencies or talents lie and the

level at which they are operating. The simplistic nature of ‘competent/not yet competent’ leads to an ignorance of relative standards of competence and ensures workers seek to achieve only what is required, the minimum (Wolf 1995). Where there is little organisational acknowledgement that there are levels of competence there is no incentive for workers to improve beyond basic competence (RSSB 2006). The minimum therefore becomes the maximum standard. A system of assessment that could recognise levels of competence and individual competencies could be an important tool in workforce development as it would allow for more targeted training and promotion as well as a lifting of standards. The following story from a workplace assessor in rail illustrates this point:

I think a lot of it is just forgetfulness too, like if they have been a driver for some time they might have forgotten the exact steps when you are doing a brakes-down test or whatever. And like I said before, usually you can remind them and then they do it perfectly next time. But then there are some people you can see they have genuinely got a development issue with it, they don't remember how to do it and they don't actually understand why you are asking them to do it that way. In that situation—I mean—the situation where I found this, it has only happened to me once where it was that extreme, . . . I forwarded on my recommendations that possibly he needed some further development, that—at that time I didn't feel that he was not competent enough to continue his driving duties, but that possibly maybe some follow-up was required with him—be that with, you know, a driver trainer or . . . yeah, something needs to be done to get him to that required level without him having to be coached to it every time. (interview, 2 December 2009)

This assessor was recording a slight deficit in competence that was not sufficient to attract a ‘not yet competent’ judgement but that he thought needed attention. If levels of competence were recognised, it would be possible also for ‘better than average’ competences and extra competencies to be recorded and this would obviously be an aid to workforce development. However, keeping and tracking performance records then becomes a significant issue, which we discuss further below.

Validity in Assessment

Maintenance of competence assessment within the rail industry is generally conducted by experienced tutor drivers, with a minimum qualification (Certificate IV) for workplace trainers and assessors. These assessors do not decide or develop assessment criteria but are responsible for interpreting the criteria (Timma 2005). Therefore an assumption within the assessment is the ability of the assessor to make correct judgements regarding the meaning of the criteria and standards and of the drivers' performance against those criteria and standards (Timma 2005; Jones 1999). It is noteworthy that these assessors go through their own maintenance of competence assessment, but that what is assessed is their continuing ability as train drivers, rather than as workplace trainers and assessors. This implies that they are being asked to use their expert knowledge of the task in hand as a basis for assessment judgements, even though, as we have seen above, the assessment instruments attempt to ‘objectify’ the performance through over-determined criteria. This situation, of course, applies in

most if not all workplace assessment but raises questions about what assessors are in fact responding to and what knowledge they may have of workers that could be utilised for workplace development if they themselves do not have an understanding of skill needs within the company's workforce. It is quite clear that assessors need to have a holistic view if they are to be instrumental in workforce development.

Assessor judgements are vital in competence-based assessment, but assessor judgements are susceptible to various kinds of bias which must be guarded against. Gillis and Griffin (2008) proposed seven ways in which bias may arise in assessment:

- *The halo effect*, where the assessor is influenced by the characteristics and qualities of the candidate not related to the competences of interest (e.g. appearance). This happens, for example, when an assessor makes assumptions about a person's competence in advance because they are of slight build (this appeared to be happening to one female trainee we observed) or perhaps wear a turban. Even where an assessor is aware of this effect it is likely to enter into their judgements to some extent.
- *Assessor bias* and inconsistencies, where an assessor's preferences and values influence the way in which information is interpreted or used. For instance we were told stories of some assessors requiring particular tasks to be carried out in one sequence, while other assessors required them to be done in another. We observed one assessment where the assessor insisted on particular phrasing of the response to a question. Such bias clearly undermines the reliability of assessment since it can lead to different assessors coming to different conclusions.
- *First impression* or primary error is the tendency for an assessor to place a higher value on behaviour that occurred early in the assessment period. This may be going on when assessors tell us 'You can tell right away'.
- *Spill-over effect*, where assessors are influenced by past assessment outcomes and give a similar assessment result for the current assessment regardless of the current evidence. This is the danger of assessors consulting personnel records or local reputation before conducting an assessment.
- *Same as me or different from me*, where assessors give higher ratings if the candidate has similar qualities or characteristics as the assessor. This also comes into play in the halo effect.
- *Restriction of range* is the tendency to use only some of the available scoring categories. This is a danger with any scoring or Likert scale. Since most assessment in rail is on a competent/not yet competent basis we only observed the use of such scales once during assessments at a recruitment centre and in that case only the central values were used.
- *Central tendency* where, when in doubt, the assessor systematically judges candidates as average. This is exacerbated where the range of results allowed is only 'competent/not yet competent'. Everyone is judged to be pretty much like everyone else, hence 'competent'. The use of the binary scale undermines some companies' desire to use competence assessment procedures to identify issues for further training or staff with particular, desired characteristics for promotion or redeployment.

It is impossible to eradicate such tendencies fully but there are ways of managing them. A frequently used strategy is to have multiple assessors and different types of assessment so that some potential biases cancel each other out. This sounds resource intensive but is not necessarily so if colleagues at all levels and the worker themselves are used as sources of information on performance in the 360-degree tradition. If assessment were based on a number of different kinds of evidence, collected by different people, including the worker, over a period of time this would increase reliability, the type of data collected, and the ability to use the data for workforce development. We return to this point in our conclusion.

The Effect of Assessment on Skills Development

The influence of assessment on learning is widely acknowledged (Sambell and McDowell 1998; Prodromou 1995). Trainees will learn what the assessment assesses. When assessment is not aligned with the purpose of instruction, learning what was intended is unlikely (Segers and Dochy 2006). So learning is directed by assessment and the learners' perceptions of the assessment (Segers and Dochy 2006; Gulikers et al. 2004, 2008, Sambell and McDowell 1998). Where assessment is deemed by learners to be irrelevant to their work or off the mark (that is, inauthentic), they will tend to discount the learning and their skills and competences will remain undeveloped.

To measure competence and competencies accurately requires a degree of authenticity within the assessment (Gulikers et al. 2004). The more authentic the assessment, the more the assessment accurately reflects vocational performance and potential. Tasks must assess competence, the assessment should be real life, and the thinking processes that experts use in real life should be required in the assessment (Gielen et al. 2003). In a competence-based learning environment, based on the above criteria, traditional knowledge tests and assessments are inadequate to promote competence learning (Birenbaum et al. 2006; Gulikers et al. 2004). They are also unlikely to identify details of competencies with potential for development.

Authenticity is subjective, which makes student perceptions important for authentic assessment to influence learning. Gulikers et al. (2004) proposed a continuum of five dimensions to measure authenticity and these dimensions include some that could reveal more about competencies. Apart from requiring real tasks (the first dimension), an authentic assessment, according to Gulikers et al., needs to be set in real contexts. For the rail industry, but potentially for many others, Johnson (cited in Rushby 2006) argued persuasively that it is functional demands placed on the worker that deliver authenticity. That means the environment should put the same workload, stress and personal demands on the worker as the real situation, for instance in requiring the performance of more than one task at once, or in dealing with rare events on top of the normal workload. Another of Gulikers et al.'s (2004) dimensions is that the social context needs to be authentic to professional practice. For train drivers this implies the incorporation of track controllers, signallers, guards and others they may

encounter on the network in the assessment exercise. Ideally, the incorporation of functional and social authenticity could be part of other assessments of a driver that would be incorporated into the overall result.

Authentic assessment instruments need to ensure that the outcome of the assessment be as per professional practice and provide an outcome that allows for valid measures of learning (Gulikers et al. 2004). This implies that learning outcomes should be measured for level of performance on more than a pass/fail basis. Criteria need to be those characteristics of the assessment result that are valued (not just the ones that are easily measured) and standards are the level of performance expected from students (Gulikers et al. 2004). Both must be realistic compared to actual practice and the reasonable expectations of a worker in the light of their experience.

I've driven a train for a year, and for two days it's like going back to school, and you sort of get—everything is instinctive after a while, you drive along and you just know things—and they're going to ask specific questions and you think, well, what the hell's that all about? (interview, train driver, 15 March 2009)

Increasing authenticity of assessment within any industry should result not only in better training outcomes, but also in the identification of existing levels and types of skill for potential future development. This does imply that competence assessment should not end with the delivery of a 'certificate of competence', but that there should be follow-up sessions that target areas for improvement and development.

Suggestions for Making Competence Assurance Serve Workforce Development

We have argued that workforce development can be supported by regular assessment of not only current competences but worker competencies. In order to be able to do this, organisations need to be able to articulate which competencies may be of interest. They then need to assess them in an authentic, valid and reliable way and records need to be maintained for the benefit of both workers and management. In this last section we draw some conclusions from our experience in the rail industry about the main points to be considered in pursuing such objectives.

Core Competencies

There is an argument that businesses can gain competitive advantage by managing core competencies for the business as a whole (RSSB 2006; Lindgren et al. 2004). A full-blown RBTNA which could establish those competencies will be beyond the capacity of many companies and, as we have seen, can introduce problems of over-specification and inflexibility. A compromise position may be to prepare a skills inventory relevant to current work practices and foreseeable development possibilities. Where competence assurance systems exist they provide an opportunity to start paying attention to competencies as well as competences. Recruitment processes

often rely on competencies and this could provide a baseline for tracking the development and use of competencies over a career. Having identified the relevant competencies at that point, they could be included in ongoing assessment, alongside judgements about how well the job is currently being done.

Valid and Reliable Assessment Practices

Useful assessment depends on gathering information about performance in a range of situations, using a range of different data sources. During formal assessment, pen and paper tests or the electronic equivalent may be used, but assessment of skills needs to include more active methods that demonstrate ability to apply knowledge, such as group exercises that work through a pre-planned scenario or table-top activities involving resolution of a problem or role play. However, another way to gather information about how well people perform under a range of situations is to set up or use existing monitoring that is carried out between performance appraisals. Such sources might include:

- planned and notified observations, supported by underpinning knowledge questions, recorded by checklist;
- unannounced checks at random intervals;
- informal monitoring by observation of supervisors, recorded by short report against predetermined criteria. Criteria could include attributes underlying performance, such as the ability to apply knowledge. This report could form part of a regular performance appraisal by a supervisor where that is separated from dedicated competence assessment procedures;
- remote monitoring by, for instance, computer record of activity. Such data would need to be discussed with the worker in order to understand its significance fairly, possibly as part of a performance appraisal; and
- periodic reports from those working alongside and under the supervision of the employee (the so-called 360-degree monitoring).

This kind of assessment-in-action also meets the need for authenticity because it happens in the course of routine work.

There are also issues of who should assess and the granularity of assessment and it is recommended that these be chosen so that the opportunity for learning/workforce development is maximised.

Record Keeping

Although there are arguments for graded assessment in the VET sector, our Delphi panel members believed that the competent/not yet competent assessment scheme will persist for the foreseeable future. The simplistic nature of this assessment understandably becomes the focus of attention, but this does not preclude the gathering

of assessment data that allows for development in the person being assessed and helps identify trends in training needs in the workplace as a whole. Current records of competencies are the summaries that record that a person is competent. What we are concerned with here are the records of assessment for each individual driver over his or her career. Currently, the behavioural/attitudinal domains in which employers may have particular interests are not well covered in many training packages. The introduction of employability skills into training packages may over time address some of these areas. Competency, performance and ongoing assurance of competence (as long as these processes are transparent) can and should form part of the employment contract. They provide protection for both parties in terms of their obligations to provide a safe and healthy workplace; fair, open and reasonable recruitment processes; duty of care; training and mentoring; support and achievement.

The development of a record book for performance monitoring goes some way towards both standardising record keeping and satisfying these obligations, while improving transparency and consistency of information. Records could include:

- psychometric and other tests performed at recruitment or after that testify to underlying abilities;
- assessment records including methods used, criteria and standards achieved;
- details of advice/coaching given at the time of assessment;
- records of training or development given and planned;
- records of significant events such as accidents and incidents and subsequent re-training; and
- personal logbooks recording relevant experiences in the workplace including personal initiatives for improved performance.

The question of who maintains such records may be answered differently according to the sector concerned and the size of the organisation. Where there is organisational responsibility for performance as in a safety-critical enterprise such as rail, the employer has the main responsibility, but encouraging workers to maintain their own records (perhaps as well as the employer) could be built into workforce development strategies. Consideration should be given to the use of electronic means of capturing and recording monitoring and assessment data for speed, security and accessibility.

Conclusion

We have outlined the potential for competence assurance processes to be harnessed to the cause of workforce development but we suggest that industry will need to recalibrate their approach to competence assurance if this is to happen. In particular it will require a change from using competence assurance to check on basic competences to identifying what potential skills exist in the workforce and to what degree. This will require collecting a range of information from across the workforce including the classic 360-degree view. We have argued that a 'portfolio' approach to collecting and using such information will best suit the needs of those who are

on the lookout for ways of improving their own skills and the performance of their workforce. Workforce development through competence assurance may also require a change of assessor to ensure that a holistic view is maintained, an increase in the granularity of assessment to allow for skill development, and targeted follow-up sessions to maximise the potential for learning from assessment.

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Chapter 11

The Challenges of Leadership in the Twenty-First Century

Tom Stehlik, Tom Short and Janene Piip

Abstract This chapter presents and discusses organisational leadership from a historical and theoretical perspective to identify issues and challenges for leadership going forward into the twenty-first century. Leadership and management theory, the global context, changing demographics and mobilities of workers, and contemporary perspectives on organisational structures are introduced and discussed. Particular reference is then made to the Australian context with a focus on the rail industry as an example of a large and established enterprise that is facing contemporary challenges in moving towards a workplace culture based on workforce development and participation models rather than traditional hierarchical, command-control structures and bureaucratic processes. The chapter begins with a review of external perspectives including an overview of leadership and management, and the latter part then focuses on internal perspectives including what it means to be a leader in Australia. We consider how developments in leadership and management theory and practice are viewed and dealt with in the Australian rail industry and conclude that robust evaluation tools and continuous improvement processes for leadership development programs are recommended for modern organisations to avoid costly and time-consuming mistakes.

Historical Overview of Management and Leadership Theory

Definitions and understanding of the concepts of ‘leadership’ and ‘management’ are blurred and continually shifting, but it is apparent that the concepts differ, and leadership has increasingly become disconnected from the activities of management.

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Table 11.1 Leadership and Management Comparisons. (Source: ChangingMinds.org (no date))

Leadership	Management
Sets the direction	Plans the work
Has followers	Delegates to subordinates
Follows a vision	Sets objectives
Long-term strategy	Short-term actions
Facilitates decisions	Makes decisions
Sells	Tells
Transformational	Transactional
Concern for what is right	Concern for being right
Passion	Control

The study of leadership can be traced back thousands of years, where interest first stemmed from a human desire to understand how people lived harmoniously in complex groups, formed hierarchies of authority, and established workable structures of command and control. With historical traditions in a military setting, the term ‘leadership’ became more prominent in an organisational context during the early 1930s and again directly after the Second World War (Fayol 1949) when behaviourists began to identify leadership as a multi-faceted competency comprising motivational skills and discerning behaviours. For a while organisations began to use the terms leadership and management interchangeably and this practice prevailed until the 1960s when popular thinking changed once again to consider leadership and management to be distinct skill sets, to the extent that they were considered unlikely to be found in any one individual (McCartney and Campbell 2006).

The term ‘management’ is also used in an organisational context, but it is generally associated with the rapid rise of industrialisation, administration and business competition in the twentieth century. In comparison with leadership, management theory is a relatively new area of study with its origins based in mass industrialisation and the need to understand how organisations could become more efficient, productive and, increasingly, more competitive. For a period of time, the topics of leadership and management were generally studied as one theme and often written about together, but the advent of classic management thinking and various theories on motivation inspired academics to study the phenomenon of leadership as something completely different from management. This stemmed from a pragmatic realisation that even the most efficiently run organisations might collapse if the leadership failed to engage and motivate the people within the enterprises. Therefore, leadership and management have been posited as two independent areas of study, though the two are always interconnected and the distinctions are often blurred. Despite these blurred boundaries and the integrated nature of leadership and management practice, some theorists have attempted to map the differences in a rather simplistic binary format as shown in Table 11.1.

The central argument of this proposition is that management skills are based on hard-edged organisation and efficiency-related issues, while leadership is softer, humanistic and based on longer-term values and/or cultural perspectives. In industry, for example, this is often explained as a division between the technical aspects of achieving operational tasks versus people management. For example, Green (2009) reported on a study which found that many organisations focus on developing their

technical innovation, but fail to develop their leadership and culture. Notwithstanding the merits of these arguments, some now think the leadership/management debate is largely academic and has ‘probably served its purpose’ in that managers invariably need to lead, provide direction and motivate people as well as organise their work (Burgoyne et al. 2004, p. 13). In this chapter we often use the terms leadership and management interchangeably to recognise a maturing of the debate, but our underpinning focus is leadership capability.

Concepts relating to leadership and management have undergone considerable change since the first theories were advanced in the twentieth century. For example, leadership and management practices have become much more sophisticated in accommodating ever-emerging circumstances that were not present only a few decades ago. These circumstances include changes in social values, the impact of technology and globalisation.

Management Theory

The advent of the industrial era with the large-scale production of goods challenged larger organisations to become more efficient by introducing planning systems, departmental structures and arranging work activities around the effective use of resources. This evolving concern led to the development of three classical theories, each of which adopted a different slant on management over a period of 60 years. The first theory was an approach called scientific management, pioneered by Frederick Taylor in 1880 and later by Frank and Lillian Gilbreth (1868–1924). The theory centred on selecting the best people for the job and using time and motion studies in order to drive performance efficiencies. In the 1920s Max Weber became the main proponent of the ideal bureaucratic form of management. His theory was deeply embedded in organisational logic, systems, structure and impersonal rationality. Finally, in the 1940s, Fayol and Barnard offered theories on the organisation of discrete management roles, division of labour, and segmentation of authority through command and control techniques. This later became known as the administrative school of classical management theory. Such was the significance of these three management theories that many characteristics of each can still be found, especially in larger organisations operating in the public sector.

At the same time as the classical management theories were being developed, a growing realisation that human beings were complex and unpredictable resulted in the emergence of humanistic and behavioural schools of management (1930–1960). For example, Lewin and Lippitt (1938) began to look deeper into the behaviours of managers and leaders in organisations, investigating the dimensions of the human psyche that make some managers more effective than others. However, it was Maslow (1943), Herzberg (1959), and Locke and Latham (1984) who focused on human behaviour in the organisational context and became recognised for their work on motivation and human needs. They looked at the role of human needs and psychology in achieving organisational goals and motivating people at work, noting that the contribution of human competencies, engagement and personal skills were just as important as scientific and bureaucratic approaches to management, leading to the

more contemporary and now postmodern notion that organisations are actually made up of people, not bricks and mortar.

In the last 50 years, many aspects of these three classical approaches to management have prevailed in organisations and featured repeatedly in the curriculum of management studies within business schools, but less attention has been given to later theories such as those developed around the concepts of systems and contingency. Systems theory, developed in the 1950s and pioneered by Kast and Rosenzweig (1972), has helped shape many of the new management practices developed in the late 1970s and early 1980s. These include, but are not limited to, understanding the organisation as an entire system with given inputs, resources, business processes and desired outputs—a concept embedded in the principles of total organisational excellence (Oakland 1999) and business process re-engineering. Other modern practices based on systems theory include total quality management concepts, lean thinking and the learning organisation (Senge 1990).

More recently, management theory has moved towards a rejection of seemingly universal ideas in favour of contingency management, that is to say, applying processes and techniques that are unique to each organisational setting; focusing on how the theoretical ideas are applied in context, given the unique internal and external circumstance of each organisation. The significance of context is an underexplored area of management and features as a key success factor in leadership. In the past 15 years increasing attention has been given in the literature to the role of organisational context in the development of managers and leaders (Damon 2007).

Leadership Theory

In an organisational context, the focus on leadership—as distinct from management—began to emerge in the second half of the twentieth century. However, despite many decades of leadership research and thousands of studies, there is still a lack of clear understanding of what leadership is and how it can be achieved. Leadership may be described as *a process where one person uses their skills of influence to enlist the support of others to achieve tasks*. There are many theories that address specific aspects of leadership, but little ‘cohesion among the theories that help us understand how they all tie together’ (Graen and Uhl-Bien 1995, p. 220).

In literally hundreds of texts over a period of five decades, researchers have studied almost every dimension of leadership including traits, characteristics and styles (which imply that leaders are born with these innate characteristics) and leadership behaviours that can be learned through education and experience. Other researchers believe that leadership is based on the situation, when people with unique skills and attributes step up to deal with an unfolding situation. Recent studies have focused on the area of ‘followership’, as effective leaders are thought to have a good working relationship with their followers. The contingency or situational approach to leadership addresses, in part, the unique context or environment in which leadership operates, such as the follower–leader relationship (Graen and Uhl-Bien 1995). Also, the extent of the leader’s social influencing skills is a large determinant of the leadership

outcomes (Day 2001). Leadership focuses on the ‘interpersonal relationships that exist between leader and follower’ (McCartney and Campbell 2006, p. 191).

Silvia and McGuire (2010) described how the modern study of leadership has progressed along a pathway of understanding trait theories, personal attributes and characteristics, and situational constraints. However, the ever-growing list of these desirable leadership characteristics means researchers have realised that following the path of one single theory or approach is fruitless and unachievable.

International Trends in Leadership and Contemporary Leadership Challenges

In the rapidly expanding global economy it is helpful to consider international trends and draw insight from cutting-edge thinkers in the field of leadership over the last few decades. International ‘gurus’ such as Daniel Goleman, Jack Welch, Jim Collins, Fons Trompenaars, C.K. Prahalad and Bill George agree that stronger values-based leadership is important; however the challenge will be in embedding values, behaviours and cultures into organisations (AHRI 2010). Many believe that the key to future success for organisations is values-based leadership with a focus on the core of the individual manager (AHRI 2010).

So how should leadership development be viewed for the future and how do these changing notions of leadership integrate with management theory? A report by IBM (2008) suggested that one of the greatest challenges for industries in the next decade will be developing, attracting and retaining leadership talent in business. Green (2009) reported that many organisations have focused on their technical innovation at the expense of developing their leadership and culture. Green’s (2009) qualitative survey of 439 medium and large Australian private sector businesses, conducted in conjunction with the Cutler Review of Innovation in Australia, found a direct link between productivity in business and leadership and people management. People management skills, including motivating and rewarding staff on an individual basis, were found to be key components in achieving higher business productivity. The report has noteworthy implications for productivity and workplace relationships. Research conducted in the UK by the Leadership Trust (Damon 2007) has suggested that six factors differentiate today’s leaders from those of the past:

1. **Globalisation.** This deals with the impact of a ‘smaller’ world, open market competition, faster travel, labour mobility and the rise of the multinational organisation.
2. **Generational challenges.** This factor includes the impact of an older workforce, a longer living society and a lack of young people available for work. Such challenges also encompass the values and beliefs of generational groups (e.g. Baby Boomers, Gen X and Gen Y). In this regard, leaders can have a profound impact on harmonising the aspirations of generational groups.
3. **Diversity.** This relates to the challenges of the multicultural workforce, gender balance, employee transience, skills recognition and inclusion. Bennis described

inclusiveness as the one ‘genuine discipline of leadership studies’ (2007, p. 2) to bring organisations into the future.

4. **Sustainability.** This is increasingly becoming the major imperative as managers attempt to balance environmental issues against commercial goals.
5. **Technology.** Technology is constantly evolving. Organisations that were once at the forefront of technology must be seen as attractive to future employees who are excited about technology, innovation and adventure.
6. **Change.** Leaders must accept the inevitability of change and lead other people through the processes of adaptation and improvement.

The first decade of the twenty-first century witnessed a renewed focus on leadership in many parts of society, particularly how external challenges such as fluctuations in global financial security impact on the modern workplace. We are also seeing the limitations of the external and ‘situational’ constraints impacting on leadership outcomes as much as the personal characteristics and attributes of the leader (Porter and McLaughlin 2006). Bennis (2007) argued that the importance of leadership is forgotten in stable times when there is no urgent imperative to tackle challenging problems that require innovative and unique solutions. He suggested that leadership in the twenty-first century will be characterised by a convergence of theories. For example, leadership has grown to include sociological theories such as social constructionism, a process where leaders uncover the ways in which individuals and groups participate in the construction of their perceived social reality and look at behaviours as a way to predict and understand leadership outcomes in a vast range of circumstances (Silvia and McGuire 2010).

Organisations everywhere, regardless of industry sector, geographic location or size of business, are undergoing a fundamental shift that will affect the nature of leadership and management. New challenges have emerged in the form of increased uncertainty, information diversification and overload, and intense competition. For managers and leaders, these developments bring increased exposure to a complex range of growing demands such as dealing with uncertainty and balancing conflicting situations, while at the same time stimulating those around them to adapt and perform (Hamel 2007; Hamel and Prahalad 1994).

Technically efficient forms of organisation, such as those traditionally posited by Weber (1947) and others, have now given way to flatter and leaner structures designed to enable greater flexibility and response. Within these changes, leaders increasingly work in cross-functional teams across traditional boundaries, and may take advantage of new-found benefits such as increased speed in problem solving, room for entrepreneurship and a focus on the end user or customer (Burgoyne et al. 2004).

The Changing Workforce Landscape in Australia

The first National Workforce Development Strategy, *Australian workforce futures: a national workforce development strategy*, was released by Skills Australia in March 2010. It recommended a fundamental overhaul of the way the nation approaches

Table 11.2 Characteristics of the Emergent Workforce. (Source: Kapoor and Solomon (2011, pp. 309-310))

Veterans	As followers:	Thrive under directive leadership
1925–1945	As leaders:	Lead others by taking charge and making decisions alone
Baby Boomers	As followers:	Thrive under a participatory leadership style
1946–1964	As leaders:	Lead in a collegial and consensual fashion with general concern for others
Generation X	As followers:	Do not thrive under an authoritative leadership style
1965–1980	As leaders:	Lead others by being adaptable to change, fair, competent, participatory and diversity sensitive
Generation Y	As followers:	Do not thrive under an authoritative leadership style
1981–1999	As leaders:	Lead with a tolerance of others, value-centred, rule-oriented and culturally sensitive

and supports workforce development at national, industry and enterprise levels. The document suggested that Australia ‘risked missing out on the full benefits of future global economic growth and the dividends from its investment in education unless it made a commitment to significantly increase the workforce participation level to 2025’, indicating that ‘there was a critical need for Australian employers to more effectively use the skills of the existing workforce’ (Australian Workforce and Productivity Agency 2010, p. 1).

In addition to the aforementioned challenges for leaders globally, the workforce landscape in Australia has also changed dramatically over the last decade and will continue to do so (AHRI 2010). Australian governments are therefore keen to increase and maintain workforce participation from the pool of potential workers: women, migrants, indigenous people and youth.

Factors influencing workforce participation in Australia include the conduciveness of the organisational environment to individual employee needs, and the adverse influence of the manager on the individual’s experience at work (Green 2009). In men over 50 years of age, participation has declined since the 1980s in traditional industries. The demand for labour has fluctuated as new technologies replace old work practices. Coupled with this, a trend towards early retirement during the 1990s and failing health due to lifestyle choices has seen lower male workforce participation. Conversely, female workforce participation has increased in the last 20 years. Access to education, part-time positions and child care has enabled women with primary caring responsibilities to participate in the paid workforce. In order to retain men and women in the workplace, healthy organisational environments and practices are essential. In these new environments, leadership across all organisational levels is a significant component in achieving higher productivity. Furthermore, the challenge of dealing with an emergent workforce in Australia spanning four generations will undoubtedly place new demands on how leaders engage at an emotional level with team members who have diverse needs and expectations of how they would like to be led. In recent years, each of these four groups has become widely known as Veterans, Baby Boomers, Generation X and Generation Y. Less known behavioural characteristics of these four generational groups are detailed below in Table 11.2.

The Australian Context

According to Yeung and Ready, ‘organisations tend to emphasise the leadership capabilities that are acceptable, legitimate and feasible within their cultural contexts’ (1995, p. 532). Therefore, placing leadership and management in the Australian context is seen as important for understanding the current practices and future challenges at a national level. In a recent report of management in the Australian context, Green described twenty-first-century workplaces as requiring ‘sophisticated skill sets and a mix of leadership and management skills’ (2009, p. 38) to encourage creativity and innovation in business. Green (2009) further described how management and leadership skills had a direct impact on bottom-line productivity and financial outcomes. As a result, studies and reports commissioned by the current Australian federal government have questioned whether better leadership skills would contribute to higher productivity in both the public and private sectors after looking at the global picture and its influences. Other Australian reports, such as *People@Work/2020* (AHRI 2010), *Venturous Australia* (Cutler 2008) and *Powering ideas: an innovation agenda for the 21st century* (Carr 2009), also highlight areas for leadership improvement in the next decade in the two sectors. Consequently, human capital is one of the key objectives of the Council of Australian Governments’ agenda to drive productivity in Australia (COAG 2006).

Previous federal governments’ attempts to build leadership capability focused on management development through the commissioning of such reports as the 1995 Karpin Report. The report indicated that a new paradigm of business was emerging, shaped by changes in the global economy, and that businesses of the future would require different forms of learning and leadership (Karpin 1995). While not without its critics, the Karpin Report made substantial inroads in establishing a sound understanding of what was required in management training programs at the supervisory level and led to the development of a number of initiatives.

The Karpin Report highlighted different leadership and management styles as a reflection of the cultural norms and behaviour, social attitudes and influences of the era to which they belonged. A snapshot of leadership styles of managers from 1970 to 2010 in the Karpin Report provides an interesting précis of the characteristics of Australian managers over the last 30 years. The 1970s were a time of limited international influence on organisations, at a time before deregulation in business and before widespread migration, while later eras reflect new influences such as international trends, technology, migration and more inclusive policies on diversity in the workplace (Sarros and Cooper 2006, p. 8). Leadership styles therefore evolved during this time frame from being autocratic through to being more communicative through to more globally focused leaders in the first decade of the twenty-first century.

The history of Australia has played an important part in defining the culture and behaviour of its citizens and these contextual characteristics have become embedded in the workplace. From very early days, Australians have become used to growth, development, adaptation and endless opportunities. Free settlers arrived in increasing numbers from the early 1780s, established the wool industry and gold rushes of

the 1850s, and created an abundance of employment and a certain way of conducting business. The remarkable advancements in Australian settlement culminated in democracy at Federation in 1901 (DFAT 2008) and the establishment of a public service. Devoid of established rules and preconceived ideas, leadership and management in business has developed with a distinctive edge (Hubbard et al. 2007). In just over 200 years, Australia has developed as a sophisticated society with many opportunities in the global economy.

Leadership in Australia

The Australian public transport industry is characterised by organisations from both the government and private sectors, all with commercial imperatives to operate without budget deficits. Separation of what is termed ‘above’ and ‘below’ line infrastructure in the 1970s has refocused government ownership (Everett 2006, p. 74). Before turning specifically to industry, it is advantageous to look at leadership generally across the public and private sectors, current practice and implications for the future.

Public Sector

The Commonwealth of Australia public sector has identified leadership as one of six key indicators of public sector organisational health and asserted that poor leadership leads to: lack of depth and experience in people management, lack of strategic thinking, poor management of the performance of people, lack of forward planning, decision inertia and low tolerance of scrutiny (APSC 2007). A report from the Australian Public Service (2007, p. 7) suggested there were many reasons why leaders within public sector agencies failed in their role and/or caused failure within their agencies. Importantly, they were found to be closed to new or alternative views, to follow incorrect strategy and assumptions, or to exhibit poor leadership behaviour including:

- an illusion of personal pre-eminence and/or excellence;
- an attitude that identified too strongly with the organisation;
- having all the answers in every situation and refusing to countenance contrary viewpoints;
- allowing image or public relations to override operational importance;
- failing to overcome obstacles including believing there is no other solution; and
- inability or unwillingness to learn.

Private Sector

Green (2009) found that large-sized firms, which often correlated with being publicly listed companies, were more likely to adopt modern management practices than other types of ownership and outperformed smaller firms in terms of operations,

performance and people management practices. The failing in Australian companies and smaller sized firms was in people management practices even though operational management was strong. Green described diversity in the workforce as an area that needs attention for the ‘building of people management skills and the relationships within organisations’ (2009, p. 7, 20). Interestingly, Australian management tended to ‘overrate its own performance’ against benchmark indicators (Green 2009, p. 6). Australian managers were reported as not being good at benchmarking their own management against current best practice, meaning they could be missing out on opportunities for significant improvement because ‘they did not recognise their own management practices as poor’ (Green 2009, p. 31). Australian management practices were rated ‘marginally above average’ when benchmarked internationally (Green 2009, p. 14).

Green found it was paramount for Australian enterprises to develop a structured approach to improving their management capabilities. They need to ‘develop internal policies, systems and processes’ (Green 2009, p. 38) to formally and regularly measure and assess their management standing against benchmarks.

Australian Leadership Style

In one study twenty Australian senior-level CEOs were asked to identify characteristics they thought contributed to their success. The study found that, at the most senior level in the organisation, CEOs undergo a range of life experiences that affect success including crises, failures and achievements. They reported that leadership at the CEO level was completely different to middle and front-line management, and that the key characteristics at this level were ‘achievement orientation and a humanistic approach followed by positivism’ (Wood and Vilkinas 2003, p. 187). Personal values lay at the core of character as well as leadership (Sarros and Cooper 2006, p. 2). Character was ‘moral knowing which included moral awareness and moral reasoning, moral feeling and moral actions that were important to developing socially responsible organisations and ethically sound management practices’ (Sarros and Cooper 2006, pp. 3–4). In more recent times these characteristics have been associated with personal attributes labelled as authenticity.

Women feature poorly in leadership roles in Australian organisations. After 30 years of rapid social change for women, their improved higher education attainments, their increased numbers in management and their efforts of ‘credentialing themselves for leadership positions by way of experience . . . relatively few were attaining leadership positions’ (Still 2005, p. 188).

Leadership and Management Development

It is established in the literature that leadership is not an individual phenomenon—it encompasses the interactions between the leader and the social and organisational environment (Dalakoura 2010). Previous theories promoted the idea of developing an individual person to become a leader or develop leadership skills, which

resulted in an individualistic approach that was not systematic (Dalakoura 2010). The current thinking is that leadership development is planned systematic effort to improve the quality of leadership at both the individual and organisational level (Hanson 2012).

Developing leadership should be viewed as building the social capital of the organisation (Day 2001). Dalakoura suggested that we should ask not 'what qualities should we be developing in our leaders but what qualities should we be building in our organisations?' (2010, p. 433). Leadership development is necessary to achieve a number of initiatives: change initiatives, business strategy and organisational performance; these are built on a 'foundation of cognitive, socio-emotional and behaviour skills' (Amagoh 2009, p. 990). Amagoh (2009) considered the importance of leadership skills in setting direction, creating alignment and nurturing commitment in groups of people and suggested that the absence of effective leadership at all levels of the organisation has a significant impact on the ability of organisations to implement and sustain change initiatives. Leadership is therefore important to management, which is normally associated with the scientific approaches of F.W. Taylor, such as accounting, problem solving and systems theory, but is now being replaced with a human perspective of leadership that includes all employees (Bennis 2007).

Research indicates that 70 % of all leadership development occurs through on-job experiences, 20 % of learning through relational learning such as coaching and mentoring, and 10 % through formal training (Jennings and Wargnier 2010). Leadership development occurs in three main ways with the greatest influence being experience through life. Formal learning, especially regular coaching and mentoring, is highly significant in shaping leadership proficiency, but exerts less influence than real-time experience, providing testimony that leadership capability is a blend of formal and experiential learning accumulated and developed over time. Gaining access to leadership opportunities in the workplace and through life helps to build the experience since the development of leadership skills is a behavioural change process (Jennings and Wargnier 2010).

Importantly, leadership development should be viewed as an ongoing process rather than a one-time event (Yeung and Ready 1995, p. 543) and in recent years the systematic human resources process of performance management has become a common method of identifying leadership development needs; but performance management processes are often sporadic in organisations despite being used as the second most widely adopted technique for identifying needs. Through performance feedback and mentoring, leaders can be coached further in methods of inculcating key leadership capabilities. Coaching and mentoring are fast becoming valuable processes to complement performance management, but success requires careful pairing of potential leaders with seasoned leaders (Yeung and Ready 1995).

Mabey (2005) suggested that leadership and management development need to be driven strategically from the top, while Green (2009) found that hierarchy seems to impact on management performance in organisations. Green's research has shown that hierarchy of organisations is positively correlated to management performance and hierarchical structures 'aided the systematic implementation of management

practices' (2009, p. 37). This is significant because many organisations are still hierarchical in structure and in larger Australian organisations up to six levels of management can be found.

Leadership Capability and the Use of Frameworks

Increasing numbers of organisations are expressing concern about the capabilities of their current and future leaders (O'Brien and Robertson 2009). In fact, over 75 % of companies surveyed in IBM's global survey claimed that developing future leaders was an area of critical concern (IBM 2008). Similarly, the World Federation of Personnel Management Associations report in July 2005 found that leadership capability was one of the top three challenges facing organisations in the future (Mutte 2006).

According to Rossan, capability is 'the ability to handle complexity, to juggle many variables at once, and to handle uncertainty and risk' (2010, p. 72). Moreover, the theory, evidence and practice all suggest that people vary in their capability; they develop at different rates and mature to different levels, but everyone's capability continues to develop over time. Several examples cited by Burgoyne, Hirsh and Williams (2004) confirm that leadership capability is significantly related to, and exerts a considerable influence on, organisation performance; in particular, an organisation's choice of enterprise performance depends, to a large extent, on the background, education level and leadership capabilities of its top managers. Therefore, building on these definitions, a capability framework can be defined as 'a set of behaviours that the organisation needs for good performance' and 'competency' is more precisely defined as the 'behaviours that individual managers must have, or must acquire, to input into a situation in order to achieve high levels of performance' (Measures and Bagshaw 2009, p. 355). Capability frameworks assist in the development of leaders by providing 'a baseline for discussion concerning leadership development and a template to decide the best way forward to apply skills and knowledge' (2009, pp. 356–357). They can energise the debate about leadership and management and also help in making decisions about which knowledge and skills to develop.

From a business perspective, capability frameworks need to align leadership behaviours with the organisation's vision and values. They should also incorporate two major factors that Quinn (1996) found were present in effective organisations: organisational focus and a preference for structure. First, organisational focus can be expressed in two dimensions: looking towards the development of the internal environment and wellbeing of people, or secondly, looking externally to align strategies and actions with the customer and market demands. Thompson (1995) referred to this alignment process as building strategic architecture in order to gain competitive advantage from the organisation's human capital. Since leadership capability is one of the central components of organisationally distinctive competencies, it is critical to business success, as it affects the organisational interpretation of both the internal and external environments (Damon 2007).

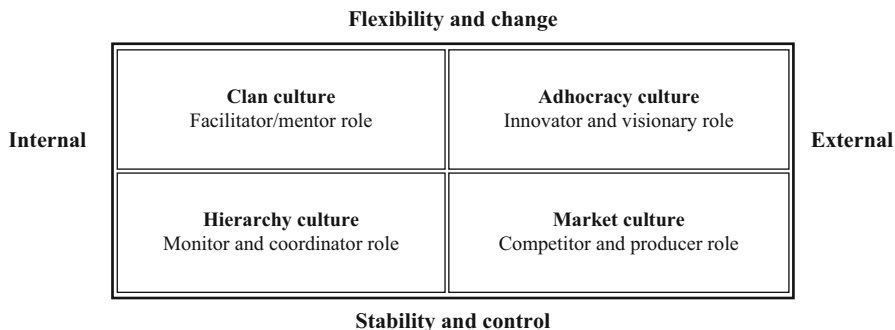


Fig. 11.1 Organisational cultures and leadership roles. (Source: adapted from Quinn (1996))

In the area of workplace education and training, capability is frequently associated with competence. Hirsch and Bevan (1988) conducted a content analysis of 100 competence frameworks from 40 organisations and found that competence concerned managers in the context of their organisational role and was associated with superior job performance, often described in terms of behaviours that could be observed on the job.

Next, an organisation’s preference for day-to-day stability and control may be contrasted with the ever-increasing need for flexibility and change. Modern organisations operate in complex, volatile and competitive environments—needing to change strategies, structures and processes in response to shifting business demands (Bennis 2007). One defining characteristic of leadership in the twenty-first century has been the emergence of a duality in leadership culture, where the classical approach, based on a theory that humans have a basic need to be led, is blended with a more liberated and collective notion that leadership can be dispersed to individual team members (Burgoyne et al. 2004). According to Quinn (1996) the culmination of these changes can be represented in a framework of four organisational cultures and four distinct leadership roles. In this model the leadership culture is related to where the organisation places its main focus and is represented by two scales: internal versus external focus and a focus on change/flexibility versus one of stability/control (Fig. 11.1). It follows that an organisation focusing on internal stability and control would require a different mix of leadership capabilities than an organisation focusing on the external environment geared towards change.

Capability models (i.e. theories examining the knowledge and skills held to underlie effective performance) have contributed to the design of new assessment and management development interventions. They have also proved particularly useful in describing the basis for effective action within unstable or changing environments (Damon 2007). Leadership capability is especially important for larger corporations in which management structures, business processes and information systems are insufficient to cope with ever-changing and highly complex environments. An analysis of job roles, tasks and the skill requirements of people working in particular roles is necessary to identify the performance requirements imposed on a leader.

Furthermore, organisations must consider the problems confronting their leaders as they attempt to manage people and their work (Alimo-Metcalfe and Alban-Metcalfe 2008).

Leadership development is viewed as important when it is linked clearly with the business strategy and pressing business needs. In fact, one of the biggest criticisms of management development programs is that they do not contribute to the business objectives of the organisation (Dalakoura 2010), but there is clear evidence that leadership and management development works when it is:

- set as a clear priority for the organisation;
- linked to business strategy with established process and frameworks;
- designed to build on competence and behaviours; and
- focused on the long-term tenure of employees.

Yeung and Ready suggested that ‘a set of universally valued leadership capabilities has emerged in most countries’ (1995, p. 543). These include the capacity to:

- articulate a tangible vision, values and strategy;
- be a catalyst for cultural change;
- achieve results;
- empower others; and
- exhibit a strong customer orientation.

More specifically, in a program developed for the UK’s National Trust, Measures and Bagshaw (2009, p. 356) identified the main reasons for developing leadership frameworks as:

- introducing transparency in terms of the behavioural skills expected in management and leadership roles;
- providing a framework to align management and leadership development with the strategic direction of the organisation;
- assisting with succession planning and career development;
- emphasising that the softer ‘people’ skills are equally as important as the technical skills;
- providing a tool to assist performance management processes; and
- creating a valid framework and common language that is relevant and easy to use.

Conclusion

A review of the contemporary literature on leadership development has indicated that the debate about separating leadership from management is relevant, but fast becoming exhausted or limited to academic texts and superseded by a more holistic, complementary and blended approach to leadership and management training. This is because the increasing rate of change experienced in today’s organisations is forcing managers at all levels to deal with interwoven or complex leadership and

management situations on a daily basis. Consequently, leadership capability is becoming the important variable in enhancing management performance and building organisational capacity. Future managers in traditional organisations need a complex blend of technical, administrative and people management skills to ensure output is achieved. In times of stability, routine management tasks do not call for exceptional leadership skills and can be achieved with prescriptive solutions, drawn from tacit knowledge and experience; but in more complex and fast-changing situations, managers rely on a range of leadership capabilities to deal with new and unknown challenges, not only within their own skill set, but also of those in their work teams.

The literature also reinforces the assertion that senior executives in successful organisations must be aware and proactive in developing leadership skills of managers at all levels and this behaviour is the first stage in developing a leadership culture in the organisation. The second stage in developing leaders, their leadership skills and behaviours is to develop a sustainable long-term strategy that identifies and utilises an inclusive framework of leading practice, but one that is designed to fit the organisation's needs. Importantly, the literature now recognises the significance of context; therefore, a specific leadership and management development capability framework should accommodate and be adaptable to the needs of an organisation, irrespective of its size or composition.

Successful enterprises are reported to engage in complex processes of 'strategic architecture' (Thompson 1995, p. 36) which attempt to align internal capabilities and resources in such a way that they deal effectively with the external challenges facing an organisation. Therefore, a strategy on leadership development would include the building of internal capabilities or skill sets that align with an organisation's goals and critical success factors.

Despite the trend in recent years to downplay traditional organisational forms and hierarchies in favour of flatter and leaner structures, the literature reflects a continuing division in the type of management training on offer to different levels of manager. The use of MBA programs for executive development, diploma courses for middle managers and frontline management initiatives for supervisory training are good examples of this ongoing segmentation.

The literature confirms that leadership is an all-embracing and urgent topic that is currently affecting organisations worldwide. Yet many of the challenges leaders face are comparatively minor and enacted at a local level. Therefore, incorporating learning opportunities and experiences that are local as well as drawing on national or international contexts are important when designing sustainable leadership development programs.

Organisational culture is influenced by a combined effort between local, first line, work group leaders and strategic leadership from the senior executive team. The value of leadership capability soon becomes embedded in the organisational culture when the language of leadership becomes part of the business discourse. Organisations use many human resource management practices to deliver this discourse, such as briefing systems, performance management, coaching projects, professional

Table 11.3 Distribution of Women in Management Roles. (Source: Short and Piip (2011))

	Executive	Senior	Middle	First line	Supervisor	Total
Managers	46	176	505	869	1,095	2691
Women	11	38	89	85	61	284
Percentage	24	22	18	10	6	11

development tools, suggestion schemes and climate surveys. Consequently, the influence of senior management cannot be overstated in ensuring the sustained success of leadership and management development projects. Active participation in leadership development programs by senior managers is just one way to reinforce top level engagement and contributes strongly to employee motivation. For leadership to be sustained as a characteristic of the organisation's culture, it must become an integral part of the business strategy and upheld within the personal values of everyone in key positions of influence.

Women have increasing influence in modern workplaces as they are included into work roles traditionally held by men and through their contribution to flexible working arrangements, part-time roles and parenting leave arrangements. However, research has indicated that industrial organisations have been slower to react to these changes, especially in technical areas and traditional jobs because of the dominance of men in these roles. Many of the strategies utilised do not purposely discount women in the workplace; rather the strategies are not designed to purposely rule women into the jobs. Therefore, different strategies and leadership styles may be required to identify and assess ways to be more inclusive of women including attraction and retention strategies and leadership development strategies. Contrary to the notion of a 'glass ceiling' for female managers, the following Table 11.3 shows the number of women in leadership roles obtained from six Australian rail organisations during 2009-2010. It shows that the distribution of women is inversely proportional to the managerial level. Simply put, there is a higher percentage of women in senior management roles than at the front line.

One recent development in the field of leadership is the concept of building social capacity and sustainability within an organisation. Socially shaped leadership strategies are intended to future proof the organisation and influence the nature of change management—to the extent that technological strategies are more likely to fail if the social dimensions are neglected. Social capacity and sustainability also facilitate the development of leadership skills in a wider cohort of people, enabling greater strength in the whole organisation. As such, the enterprise is not reliant on a small number of key people to lead the organisation and juniors become ready to succeed in higher level roles. The success or failure of a leadership program and an ensuing leadership development culture is dependent on senior managers both initiating and participating in training initiatives that build social sustainability, thereby providing good role modelling for junior managers.

Finally, installing a successful leadership development program can be expensive and organisations are currently investing significant budget amounts on leadership development projects. However, the reports referred to in this chapter reveal that there

is a universal lack of robust evaluation of leadership programs, and especially a failure to identify the effectiveness and long-term outcomes of the funds invested. Without robust evaluation tools and continuous improvement processes, organisations are more likely to make mistakes on an ongoing basis that are both costly and time-consuming.

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Chapter 12

Leadership Talent Identification and Management

Janene Piip and Roger Harris

Abstract As universal trends of globalisation suck companies into a worldwide marketplace vortex, organisations and leaders are being forced into redefining what it takes to succeed. Talented leaders therefore are an integral part of business strategies that underpin how organisations thrive in these environments. As a sheer matter of survival, both exogenous and endogenous factors now require companies to know what it is that they are looking for in their leaders, make full use of the talents of all leaders and be prepared to adjust their talent management strategy as environmental conditions change. Since leadership in organisations is now more complex than ever before, talented leaders can translate the company's purpose and intent to people in teams, engaging their commitment to enhance business productivity. This chapter explores how organisations are making sense of these realities by presenting information from the literature and a recent case study from Australia.

The Importance of Leadership Talent

The importance of having the right leadership talent for business success is as old as time, going back anecdotally much further than the scholarly literature. Throughout history, innovations such as the building of the pyramids in Egypt using humans to develop vast infrastructure, to more modern versions of creativity and advancement, all have been led by talented leaders.

Fast forward to today, companies now accept that ongoing change, new business configurations and instability are inevitable and they will need to keep finding ways to sharpen their business performance for improved outcomes. Even public sector organisations, and not just private companies, need to remain commercially viable to be sustainable in the long term. Leaders have a key role to play in such business

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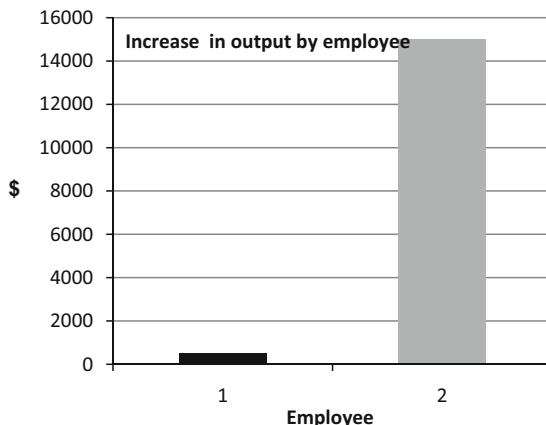
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output and performance, and there are many sound reasons to utilise and develop the talents of both current and aspiring leaders. In Australia, leadership skills of managers are high on the ‘productivity’ agenda as organisations increasingly move into the global economy, facilitated by technology in a 24/7 business environment.

The Australian Workforce and Productivity Agency (2013) reported that discussion about the role of leaders in business output is not new, and can be traced in the literature for more than 100 years. At the peak of industrialisation, Walker (1887) described the important function of skilful managers in leading a large enterprise, typical of those times, where there were both many people and new machines. In more recent, deregulated times in Australia, the influential Karpin Report (1995) initiated debate on improving leadership skills of managers for modern-day enterprises. Undeveloped leadership skills to meet new productivity demands were found to be severely hampering many organisations and businesses, and skills were well below international benchmarks. The Australian Workforce and Productivity Agency (2013) reported some of Karpin’s findings as the lack of ability by managers to shift from being a technical, operational expert, to a manager, and then a leader; a lack of base or foundation skills for management and leadership; and widespread lack of awareness of the connections between leadership expertise and business success.

In recent times, the leadership debate in Australia has certainly intensified as organisations seek to understand their complex performance factors, post the global financial crisis (GFC) of 2008. Boedker et al. (2011), in a report on high-performing workplaces, highlighted that talented leadership throughout an organisation contributes to increased performance of teams, or an estimated 12 % gain in productivity and output across the organisational spectrum. Their research identified that productivity is increased through small improvements in individual performance that contribute to larger gains across the whole organisation. The ability of the leader to motivate individual employees towards these goals is the key performance factor, yet is widely undervalued. In fact, how an organisation identifies and manages its leadership talent is ‘not easily copied by competitors’ and can be strategised in ways to best suit the business purpose (Huselid and Becker 1996, p. 401). Almost 20 years ago, Huselid and Becker (1996) reported that even minor adjustments in people management approaches such as developing strategies and structures to identify skills gaps could have dramatic impacts on business performance. They calculated (p. 418) that if an organisation’s potential pool of people or ‘talent’ is analysed and closely aligned with business priorities, output can be increased while market value of the company can be raised by an estimated, though modest, US \$15,000 per employee. Several writers including Boedker et al. (2011) have confirmed the finding that the powerful combination of talented leaders and motivated teams, applied throughout the organisation, can maximise productivity. Huselid and Becker (1996) suggest that there are two key features of productive organisations – a human resource management strategy that is designed to have a ‘strategic impact on the organisation’ and a system that aligns the ‘core competencies and capabilities’ (p. 401) within this strategy. Figure 12.1 illustrates the difference in individual performance between employee 1 and employee 2 when individual capabilities and competencies such as leadership ability are managed purposefully.

Fig. 12.1 Comparison of performance improvements when employee skill gaps are managed



Furthermore, leaders add value to an organisation through their knowledge and skills, their relationships and business acumen, and their conceptual abilities to think outside the square. Lazear et al. (2012) generalised the output of leaders and managers across organisations and suggested that the value of a good leader is estimated to be 1.75 times that of a worker through their ability to lead, guide and teach employees. Leaders have an important role to play in critically assessing the viability of individual business units under their control, the performance of staff and their collaborative work output. The ability of a talented leader to conceptualise joined-up approaches to business contributes to operational savings, less wastage through more efficient management practices, and cost reductions to operations on the ground (McCartney and Garrow 2006). The critical importance of utilising the talents of leaders is ever-increasing as organisations move to knowledge-rich environments where working with people and information supersedes times when unskilled labour and machines prevailed (Boedker et al. 2011). The shift to this new era highlights the significance of talented individuals throughout the organisation motivating and enabling people for tactical business success. However, Green et al. (2012) believed that in Australia, as in many other parts of the world, the latent potential of leaders is still not fully utilised or indeed understood in terms of the implications for business output, productivity and performance. This is the case even though Australia is one of the most prosperous nations in the world where most citizens enjoy a high quality of life, freedom from conflict or war, and freedom of speech (Peel and Twomey 2011).

Changing Ideas about Leadership Talent

The progression of thinking on what constitutes a talented leader in Australia can be tracked over time, and has been strongly influenced by both exogenous and endogenous factors. Since leadership contexts are ever-evolving, ways of leading that were suitable in the past may not be applicable now, and might be even more irrelevant in the future. Pre-globalisation, during the 1950s to 1980s, a single-organisation

career was considered typical and individual leaders developed a deep connection to the business (Nicholson and Nairn 2006). In these times, external impacts were insignificant, contributing to limited diversity in the workplace, and characterised by periods of economic and social stability (Karpin 1995). From 1990 onwards, shake-ups of major public assets affected stable organisations, and sourcing talented leaders from outside the organisation was considered advantageous to renew business knowledge and growth. However, since the 2008 GFC, worldwide economic instability has increased business uncertainty, resulting in the need to focus on increasing the productivity and performance of existing human assets.

As can be seen from this brief précis of Australian history and leadership, circumstances here are dissimilar to any other country, having evolved from a unique position. As a result, what is described in the literature on talent management and the management of talented leaders—predominantly from USA or European sources—may not necessarily apply to Australian contexts. Increasingly, globalisation with localisation of business operations now defines many modern industries, where the internal environments of companies are now as complex as the external environments. The local operating knowledge of leaders is extremely important in these global business webs but the problems for organisations and leaders in these new environments are multifaceted. Ongoing change and the rise of technological innovations mean that organisations are consistently being destabilised and reshaped. How employees from diverse cultural and demographic profiles make meaning of these reality shifts is a complex task for leaders because there are now multiple influences on individual ways of thinking (Green 2007). However, what we do know is that leaders are often the custodians of many people who have strong associations and emotions attached to their work, and ingrained beliefs and ways that are difficult to change. Leaders need sound underpinning knowledge and the ability to make precise decisions in these situations to bring about organisational development and renewal. So when it comes to thinking about leadership talent, a first glance at what makes a ‘talented’ leader would logically highlight certain skills and abilities. However, former preconceptions about talented leaders may not always be true in the current climate which we will explore in this chapter.

What is Leadership Talent?

The term ‘leadership talent’ is rarely found within current writing as a stand-alone term but there are numerous articles on ‘talent’ and ‘talent management’. However, what is meant by ‘leadership talent management’ is broad and comprises the systems, processes and strategies for managing talented leaders within the organisational context. It seems the reason leadership talent management is not often described in the literature is because many people who are considered ‘talented’ are also considered to be natural leaders. Tansley suggested that:

'Leadership talent' can be described as those individuals whom 'the competition would hire within seconds' and they are indispensable because of their ability to 'see the future'. Typically, an expanded definition includes 'high potentials for leadership', and also specialists, thought-leaders and individuals with niche (and scarce) skills. (2011, p. 270)

However, 'leadership talent' is really a two-part term, constructed to highlight two important skills that organisations are looking for, as the external environment changes and organisations seek to align people with their strategy. As such, understanding what is meant by the components of the terminology is crucial for the identification and management of leadership talent.

Some of the recent literature that considers how organisations are meeting their leadership talent needs in the current economic climate provides clues to defining the dual expression. Writing on talent management has a short history, from 1998 to 2013, but the texts highlight the shifts in the external environment as the conditions move from stable to tumultuous, and capture these talent management progressions on paper. From the seminal study on talent management by US-based management consultants McKinsey (Chambers et al. 1998), to 'popularised' talent management writing in the early to mid-2000s, as described by Lewis and Heckman (2006), to serious writing since the GFC in 2008, consideration of management and leadership skills has started to appear in the talent literature. This new focus on leadership talent is thought to come from a realisation that poor leadership decision making contributed to the GFC. Within earlier talent management literature, much of the discussion came from a safe, human resources (HR) perspective of identifying and placing talented people within organisations (mainly multinational organisations) across a global business environment, rather than from a business and human potential perspective (Kim and McLean 2012). Now, the human potential viewpoint is becoming increasingly prevalent as organisations set out to identify what they are looking for in their leaders to meet organisational economic goals (McCartney and Garrow 2006).

As we move to particular contexts, we find that in Australia there has been limited work on talent management, even less so within industry contexts, and nothing about leadership talent per se. A study funded for 4 years by the Australian government and the CRC for Rail Innovation in 2009 set out, therefore, to explore leadership talent in rail industry organisations to inform leadership needs of this particular context. Later we report some of the findings on managing leadership talent from this case study complemented with information from the literature.

illuminating Talent

Talent is not a new term. While often used to define special skills and attributes, there is little consensus on what it really means. In past writing, the term 'talent' was found to be assigned to a denomination of weight, and then to units of silver (Tansley 2011), which were linked to a commodity of high value (Michaels et al. 2001). Over time, understanding of 'talent' has become correlated with the special skills and abilities of certain people, sometimes interchanged with the word 'gifted'.

In regard to organisations and business, there is a definite progression in the meaning of ‘talent’ from ‘a person’s abilities, an aptitude or ability found in a person’s makeup which may be innate or learnt, or developed through different experiences’ (Michaels et al. 2001, p. xii) to ‘behavioural manifestations and related to physiological makeup and personality’ (Boyatzis 2008, p. 8). Other factors add to the complexity and influences on ‘talent’ including individual capabilities, education, job satisfaction and opportunity to perform in the workplace (Boyatzis 2008). However, these unique combinations must come together in certain ways, in certain contexts, to affect performance outcomes (Collings and Mellahi 2009). Within a business setting, organisations should not settle on identifying only what they can ‘see’ in regard to talent because only a few people are born talented but everyone has the ability or potential to develop further (Tansley 2011). Limiting perceptions of ‘talent’ to what can be observed on the outside overlooks the opportunity to explore individual motivations for different careers and life goals. For these reasons, understanding the meaning of the word ‘talent’ as potential, existing in possibility or capable of development (Silzer and Church 2009), allows organisations to plan leadership talent management strategies for their business and to identify the people with the potential to fill particular roles. When considering leadership talent from a workforce development perspective, it becomes evident that organisations must define ‘talent’ for their own contexts to have any chance of success in identifying it (McCartney and Garrow 2006).

Clarifying Leadership

Complicating the difficulty in understanding leadership talent management is the realisation that the term ‘leadership’ is also not widely agreed upon, and is often interchanged with ‘management’. What organisations need are leaders at all levels of the organisation, to organise work and lead people by ‘learning their way out of novel problems’ (Dixon 1999, p. 243) brought about by continuing change and external turbulence. Uhl-Bien et al. described leadership as being an ‘adaptive challenge (typical of the Knowledge Era)’ (2007, p. 300), rather than a management dilemma. This approach was more characteristic of the Industrial Age where routine approaches with known solutions were typically used to solve technical problems associated with machines. Leadership involves people and the engagement of intangible assets related to knowledge, capabilities and skills. Solving complex problems requires leaders to utilise the skills of many employees, engaging their participation for successful knowledge transfer that can lead to new discoveries about old issues, and is found to require exploration, rather than ‘standard operating procedures’ (Uhl-Bien et al. 2007, p. 300). The challenge in business environments today is for leaders to become business savvy, managing the rising costs of business balanced with sustainable and socially responsible practices while considering the involvement and individual needs of employees.

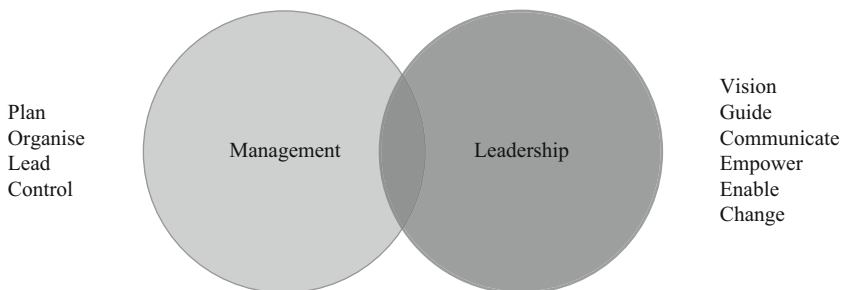


Fig. 12.2 Comparison of performance improvements when employee skill gaps are managed

Management and leadership skills are intertwined, and it is thought that the individual must develop strong management skills such as planning, organising and controlling skills for business tasks and functions before being able to lead others successfully (Toor and Ofori 2008). Toor and Ofori believe that ‘leadership involves power by influence and management involves power by position’ (2008, p. 64). As a result, the starting point for successful management and leadership action is foundation skills that can be developed and strengthened in each leader, no matter if they are aspiring to a leadership role or already in a role. In certain environments, leadership is believed to build on these management foundations through the ability of talented leaders to relate, empower and enable people in ways that align the organisation with its vision, purpose and intent. Leadership therefore brings about ongoing change, as the leader articulates the way for followers and ensures they are confident in the direction they is being taken. Figure 12.2 depicts the interdependent synergies of management and leadership thought to be necessary for leaders.

Defining Leadership Talent

Clear paradigm shifts in the business world mean that no one broad definition of leadership talent can be applied to an organisation with outstanding success (McDonnell 2011). This is because there are multifarious industry types, organisations and niche areas of business in different markets across different environments. However, one thing is certain: if an organisation can define what characteristics, skills and abilities it is looking for in its leaders, it is more likely to be proactive in aligning talented leaders with organisational business strategy (McCartney and Garrow 2006). While leadership or acts of leadership are thought to be able to come from anywhere in the organisation, for the purpose of this discussion ‘leadership talent’ will be confined to formally assigned leadership roles. As mentioned previously, in much of the recent talent management literature, leadership and management are discussed as add-ons and such discussion is predominantly confined to senior management roles, particularly in the context of multinational companies. In this chapter, we undertake to unbundle the types of formally assigned leadership roles to continue this dialogue.

Levels of Leadership Talent

Even though the global business interface is affecting countless industries, many large organisations maintain traditional, hierarchical operating structures (Mumford et al. 2007). A case study of the Australian rail industry identified a traditional hierarchy of formally assigned roles with up to six levels of leaders (Short et al. 2011). These types of hierarchical structures keep order where there are many employees through leaders at each level maintaining control of the business functions. An initial look at these leadership roles identifies the differences in purpose for each leadership level from leading the business, leading other leaders and leading teams, as shown in Fig. 12.3.

Further analysis identifies that leadership is enacted differently at each level as each leader contributes a different function and purpose to the business:

- The chief executive officer creates the vision and direction for the organisation.
- Executive leaders lead the business strategy.
- Middle-level leaders lead other leaders.
- Frontline leaders lead teams.
- Team leaders manage performance.
- Individuals deliver results.

As a result, a leadership talent management approach that utilises the talents of all leaders recognises the differing skills and abilities required at each level, and their important contribution to the overall business purpose. It may be construed, therefore, that the definition of leadership talent for each level of leader may be different, although connected to an overall organisationally specific definition.

What do Leaders do at Each Level?

Within the levels of leadership, scholars including Katz (1955), Northouse (2010) and Yukl (2010) have identified three main domains of leadership that can be accomplished. These elements are known to respond to a variety of learning and development strategies if the particular domain requires further improvement. Consistent with a workforce development and human resource development philosophy, when viewed from this paradigm the ‘skills approach’ to leadership is a way of diagnosing and developing the potential of leaders, or their leadership talent, in these domains. Yukl (2010) and Northouse (2010) categorised these domains as:

- hard skill domain: task oriented (plan, clarify and monitor);
- soft skill domain: human relations oriented (support, develop and recognise); and
- conceptual skill domain: change oriented (innovate and persuade).

Katz (1955) and Mumford et al. (2007) further suggested that the domain areas vary in focus for the different levels of leadership. At the executive level, the hard or technical area is less important than the soft skills of human relations and change or conceptual areas. At the middle level, the hard, soft and conceptual skills areas

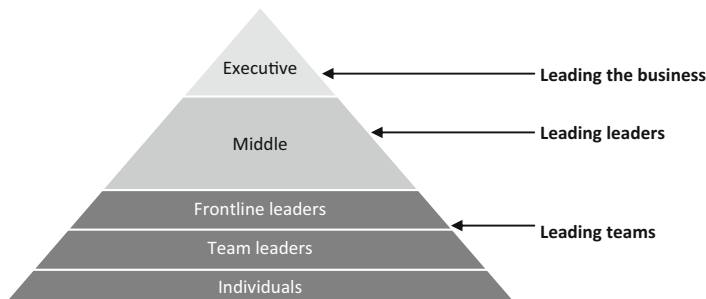


Fig. 12.3 Hierarchical organisational structure

are equally important across each domain, while at the frontline level the skills required are more essential in the technical domains. Mumford et al. (2007) further incorporated a fourth idea, described as the cognitive skill requirement for each level of leadership, indicating that executive leadership roles require higher cognitive agility (Silzer and Church 2009) than frontline leaders. Cognitive agility is required to grasp new concepts, apply critical thinking to new situations and conceptualise new possibilities from new learning.

Some organisations have difficulty separating the importance of technical skills for leaders from other skills (human and conceptual). However, the skills approach can enable organisations to interpret the three domains of leadership practice and understand their importance for each leadership role. Many organisations have traditionally had a high need for technical skills, such as in the Australian rail industry case study. In such instances where talented technical experts are required, organisations may consider this model to differentiate the role of technically talented individuals from leadership roles, as this middle-level leader in rail aptly identified:

Now, some traits aren't conducive to leadership. They are conducive to being an analyst. They will delve deeply into something and come up with an answer but they won't be able to push forward and do something with that information. There are people that are leaders and people that aren't leaders and people that want to be leaders that can't be leaders until such time as they get the training to develop them into leaders. (middle-level leader, Australian public sector organisation)

Even though a skills approach identifies where a leader should direct most of their efforts, contextualised definitions of leadership with more detail are needed to specify the talents required by organisations for their own particular circumstances (Tansley 2011). Definitions might reflect current organisational priorities and environmental factors such as operating in a global environment along with other capabilities valued by the organisation (Beechler and Woodward 2009).

Identifying Leadership Talent

Leadership talent means the ‘potential for talent’ existing in possibility or capable of development. In the previous section we identified structural methods for explicating the skills for each level of leadership and stated that the skills and abilities for each level are different. While this may be helpful for organisations in putting together a picture of leadership talent, how can those with leadership aspirations or ability be identified?

Much of the literature identifies that performance appraisal or management processes are the most common tactic for identifying aspirations for leadership or other job roles. However, Blass (2007) reported that many organisations have not developed the appropriate tools to measure individual aspirations, future capability and potential. In our recent study in Australia in three rail industry organisations, we found that, even though performance discussions were conducted, there were no tools for capturing leadership talent aspirations. We found that there might need to be eight or more differentiated approaches, or sets of tools, or a framework, to identify and develop leadership talent for industry environments where executive, middle, frontline and human resources managers are involved. The eight varying approaches take into account these four levels of leaders already in leadership roles (current) and their potential to develop further, and aspiring leaders hoping to move into leadership roles.

In the rail case study, our findings about leaders and the abilities required for leadership reinforce that a balance of skills is required by executive, middle, front-line and HR leaders, consistent with the view of Katz (1955) and others (Northouse 2010; Yukl 2010; Mumford et al. 2007). The tools to identify leadership talent might incorporate information about the three types of skills (technical, human and conceptual skills) since the evidence from the study identified that many leaders had traditionally been promoted based on their technical, and not other, skills. This swayed perceptions of leadership, and many leaders felt compelled to continue identifying and promoting new leaders based on specific, technical ability, given there was no other framework or strategy to follow. This finding supported that of Goleman (1998), reiterating that a balance of skills is needed for leaders, as technical skills alone comprise only a proportion of the functions of a leader’s role. Returning to the beginning of our discussion on the importance of leadership talent and its role in productivity and performance in organisations, our findings highlight the importance of human and conceptual skills in leadership that are often overlooked in organisations.

Three Dimensions of Potential

Northouse (2010) believes that while a skills approach can diagnose the proportions of expertise required to lead others, there are other unique components of talent that individual leaders might contribute to the role. When identifying ‘leadership talent’ or potential to be a leader, it is thought that some abilities and skills for leadership

are observable in certain situations while others only come to the fore depending on other experiences and opportunities (Silzer and Church 2009). Knowing how to identify and encourage the potential for leadership in organisations is therefore not trouble-free in practice because aspiring leaders need opportunities to practise and demonstrate their skills before they move into a more permanent leadership role. Silzer and Church (2009) suggest that talent or the potential for leadership comprises three further dimensions, in addition to the hard, soft and conceptual skills of leadership. These dimensions are stable or fixed ability, potential for growth, and career opportunities. Leadership talent therefore is complex, developed through career experiences but also dependent on a number of fixed characteristics within an individual's personality that cannot be changed – consistent with some ideas about individual or personal traits.

Foundation Dimensions of Potential

The foundation dimensions of an individual's make-up are stable, and unlikely to change over time. Since they are innate and visible, they provide an indicator of cognitive abilities and personality, affecting how a person learns or develops skills, and whether they are capable of certain leadership roles (Silzer and Church 2009). The cognitive component of leadership, highlighted by Mumford et al. (2007), might indicate at this early stage whether some existing or aspiring leaders have the ability to move to higher level roles such as executive roles or whether they are more suited to such roles as middle or frontline leaders. However, what is known is that leaders at all levels require skills that enable them to engage with others and, for this reason, the foundation dimensions of potential provide an indicator of how the individual interacts with others, and their ability to lead and be in front of others especially in times of crisis and change (Day et al. 2009).

Growth Dimensions of Potential

Learning ability and motivation provide supplementary indicators of whether a person has the potential to develop for a certain type of leadership role. Growth dimensions are within the locus of control of the individual, related to internal drive, ambition and personal responsibility for learning and personal change. Learning ability or agility, as described by Silzer and Church (2009), is now understood to mean the ability to apply learning from first-time experiences. It is a strong predictor of leadership talent through the desire for high achievement and the need to understand more about oneself (Day et al. 2009). Behavioural characteristics and attributes that can be observed by others and possessed by leaders such as drive, energy, engagement and tenacity provide an indication of the propensity of leaders for learning, self-development and self-actualisation (Silzer and Church 2009).

Career Dimensions of Potential

The dimension related to careers and leadership skill is not always apparent to its full extent because the potential or growth dimensions of the individual need the right conditions and opportunities to flourish or be revealed. Within the career dimension, there are three other areas that provide important signposts for identifying potential leaders. These include:

- leadership skills: ability as a leader to empower others and influence change;
- past performance: track record and past achievements; and
- knowledge and values: cultural fit of the individual with the organisation, industry and knowledge and combinations of certain technical skills at each leadership level.

The extent, timing and level of the career factors and combinations should also be considered in identifying the potential of both current and aspiring leaders as leadership experiences are progressive over a lifetime.

Where an individual is engaged in a particular leadership role such as a frontline or supervisory position, their ability to perform this role may be strong but their potential to move to the next level is based on factors relating to foundation and career dimensions. Leadership ability is based on experience through the career journey which requires commitment to personal change to negotiate the climbs and transcend to the next level of mastery. Leadership not only includes growth processes on this path but experiences of rejections, declines and losses, and not all leaders will be successful in gaining a high point (Day et al. 2009). The full extent of an individual's ability in different types of roles would not necessarily be known at the beginning of their career because transitions are not always smooth and the appropriate development and career opportunities may not arise. There are also a number of other variables to consider in the career dimension. If an individual is not currently in a designated leadership role, their leadership ability may be currently unknown even if they have been a leader before. Motivation to undertake a leadership role also needs to be present and this can be probed by regular conversations with the line manager and an important facilitating tool to identify leadership talent.

Following the model of Silzer and Church (2009), identifying leadership talent is thought to be a process of observing the visible aspects of behaviour and personality, while to some degree uncovering the hidden aspects of a person's skills, traits, motives and abilities for leadership. Understanding the combinations of these leadership aspects is claimed to be the precursor of correct diagnosis for enabling leaders to realise their full potential at work (Silzer and Church 2009).

Managing Leadership Talent

Knowledge, and individuals who possess certain knowledge, lie at the heart of talent management (Beechler and Woodward 2009). Therefore managing talented individuals in the organisation requires a planned, not an ad hoc, strategy. By developing

leaders already in the organisation, there is more engagement with the business purpose and continuity of purpose from existing employees. While some organisational renewal occurs when key employees are hired from outside, there is also a recognised decline in performance of new leaders in an unfamiliar workplace situation, which can be costly and time inefficient for organisations as any new leader learns their role. It has been suggested that, for leaders to reach peak performance in a new situation, near their former capability, may take as long as 5–10 years (Beechler and Woodward 2009; Tansley 2011). Consequently, identifying, developing and managing existing human assets of an organisation can be more productive and sustainable for many businesses in the long term.

Developing a Leadership Talent Management Philosophy

A number of writers including Blass (2007) and Ashton and Morton (2005) believe that management of talented employees and leaders involves strategies, structures and systems to support the potential and future capability of both the individual and the organisation. A leadership talent management strategy, therefore, might firstly consider a broad philosophy about leadership talent management by setting down a course of action to guide decisions. This philosophy would underpin the reasons for developing the leadership potential of the organisation, and identify what the focus of the strategy will be and how the strategy will be undertaken for the long-term benefit of the organisation. The philosophy might identify such guiding principles as:

- **Organisational philosophy:** Does our organisation have the values, beliefs and behaviours that support the vision that each leader has unique potential worth developing?
- **Focus:** Does our organisation know what skills and competencies are required for leadership at each level? Are these ideals widely communicated? Does our organisation ensure the right people are in place to fulfil these goals?
- **Partnership:** Are our business managers and human resource management teams working in partnership to fulfil the leadership talent strategy goals?
- **Future view:** Does our organisation take an approach longer than 12 months to develop strategies that facilitate change through talented leaders?

In this example, the four components above might underpin an organisational belief system about talented leaders, enabling the organisation to go forth and identify the potential in both current and aspiring leaders, aligned with their business needs. Hence, leadership talent management may entail a more detailed framework that describes individual and job role characteristics for talented leaders at each level, how the organisation will identify aspiring as well as existing leaders, and how their talents will be developed further—all the while keeping in mind the purpose and intent of the organisation at the particular point in time. Being able to adjust and refine the leadership talent strategy is also important for several reasons. It allows the

organisation continually to review, update and align its leadership talent to business needs as environmental conditions change (Ashton and Morton 2005).

An Example Framework

The research from the rail case study and our analysis of the literature resulted in the development of a framework to guide leadership talent decision making in organisations through an objective rather than subjective approach, considering all current leaders and leadership aspirants. The framework consists of six main areas for leadership talent management at each level of leadership:

1. The external and internal environments of leadership.
2. A definition of leadership.
3. Ways the definition is communicated.
4. How leadership talent is identified.
5. How leadership talent is developed.
6. Commitment to evaluate and improve leadership talent management processes.

These ideals might be considered by an organisation in setting parameters around identifying and managing both current and aspiring leaders at all levels.

In regard to the theme of external contexts, leaders need to consider the outside world so that they can assimilate the direction of the organisation and their individual practice with changing environmental conditions, recognising that this would vary for each level of leadership. On the internal contexts theme, the framework suggests that a leadership talent management strategy is dependent on collecting and analysing employee information, including profiles of each employee. Themes about defining and communicating what it is that organisations are looking for in their leaders ensure that there is a transparent approach to conveying the strategy widely, enabling all who are inspired to develop a leadership career to do so. The framework enables organisations to identify and develop leaders at all levels through a range of consistent approaches. Table 12.1 presents the components of this leadership talent management framework.

Important Findings

Our research highlighted the importance of regular conversations between line managers and leadership aspirants, and its high correlation with leadership talent management. Conversations may be either formal, such as for performance management or appraisal discussions, or informal, as in regular, authentic and connected discussions that just happen in the course of work. The study of a culture of successful and connected conversations highlighted a number of points:

Table 12.1 Leadership Talent Management Framework

Theme	Leadership talent management ideals <i>The organisation will identify and manage leadership talent considering:</i>
External contexts: Our organisation understands the local, national and global contexts in which we operate. We identify and manage our leaders considering these environmental conditions.	Local business needs, the culture of the global parent company and the skills required to be a leader in a global, knowledge economy Individuals who are able to adjust locally to the conditions of the changing external environment Sustainable leadership practices and sustainability of the environment in which we operate
Internal contexts: Our organisation understands the richness of the internal organisational environment and the diversity of people who aspire to be leaders.	Different generational groups, from younger people commencing their careers to older people wanting to prolong their careers as leaders Different cultural groups, women and youth who aspire to be leaders Use of technology to provide flexible ways of working for people from all groups who aspire to lead in our organisation
Defining leadership talent: Our organisation has a clearly described definition of leadership talent for all levels of leaders.	The importance of leadership talent for our business strategy The difference between leadership and management skills Our specific definition of leadership talent which is contextualised for each level of leadership
Communicating leadership talent management approaches: Our organisation communicates our strategy widely in different formats.	The need for senior leaders to endorse the leadership talent management strategy A transparent definition of leadership talent Performance expectations of leaders at each level—these expectations will be widely known and regularly discussed
Identifying leadership talent: Our organisation engages support from leaders at all levels to identify the aspirations of future leaders.	The need for senior leaders to endorse and model talent management behaviour The importance of leaders at all levels holding connected performance conversations with their teams to identify aspirations Individual performance and development needs
Developing leadership talent: Our organisation utilises a range of development approaches to meet the individual needs of leaders.	How to identify and develop individual leadership development needs A range of development strategies to match individual needs Relational-based learning, formal learning and workplace experiences as preferred development approaches
Evaluating the strategy: Our organisation evaluates the approach and aims to improve our leadership talent management strategy considering stakeholder feedback.	Targets for the identification and development of current and aspiring leaders What is happening with our leadership talent management strategy and approaches How to continuously improve our strategy

- Organisations need a ‘mindset’ that focuses them on managing their leadership talent so that they are able to collect the right information from people and about people.
- Line managers have an important role in ‘tuning into’ the aspirations of team members for a ‘joined-up approach’ to managing leadership talent across the organisation.
- Line managers need to be prepared with the right tools to undertake this task, and would benefit from ongoing learning and development to ensure they understand this important role.
- Line managers need excellent people or ‘soft’ skills to be able to identify the aspirations of others. They also need wide-ranging career and organisational knowledge to be able to recommend certain career paths and life options for people in their teams.

Connected conversations, both formal and informal, have a key role to play in retaining talent and supporting aspirations that may otherwise be overlooked in many organisations, especially from diverse groups. Women, mature age workers, workers from minority cultural groups and employees from job families such as customer service and HR, who are often left out of leadership opportunities because they were never asked about their aspirations, can benefit from organisations taking a more proactive role in connecting with them through conversations to identify their aspirations. As a consequence, including all people in conversations and appraisal discussions mitigates the risk of disengaging employees from leadership opportunities that are known only to some. Such inclusive and authentic approaches to managing talent, through a widely communicated approach, reflect well on stakeholders’ perceptions and brand the company as an employer of choice.

As a result, we found that talent management, through performance appraisal processes or performance conversations, could benefit from more structure and from increasing employees’ understanding of why managers are collecting personal information about their teams. Learning and development strategies to strengthen line managers’ conversations with their employees about their aspirations and potential might include development in how to:

- conduct conversations to discuss aspirations for career and life;
- conduct performance appraisals where there is a focus on performance against the job role;
- identify and capture individual leadership potential by providing workplace experiences to test leadership skills; and
- use technology to collect information about employee aspirations that could be assessed or mined, organisation-wide, for new leadership opportunities as they arise.

The reason for using formal structures to identify leadership potential and talent is to identify the skills, abilities and motivations of individuals for leadership through a formalised process rather than through an informal process. Objective processes give equitable access to leadership opportunities for all, which is one of the guiding principles of the leadership talent management framework. This philosophy and

approach allows aspiring leaders to move in and out of leadership opportunities along the various stages of their career journey and reassures those with potential for other roles in technical fields of expertise that are crucial to the organisation's success, but without the potential to lead. A more structured approach to managing leadership talent can complement existing programs that are often in place, such as graduate programs that support and identify high-potential talent in all fields at the beginning of their careers. For other leaders, there has been a paucity of well-thought-through leadership talent management programs that foster and encourage high potential leaders at all levels of Australian organisations.

Resourcing the Management of Talent

When organisations have sorted out what it is they are looking for in their talented leaders, committing the resources required to underpin the leadership talent management strategy should have high importance. A number of studies (Blass 2007; McCartney and Garrow 2006) have identified that there are three main groups of managers who would be involved in developing and supporting the strategy, including senior managers, HR managers and line managers. Ongoing support from senior leaders through commitment to the strategy and through providing resources that support talent management is one of the most important enablers. As mentioned previously in this chapter, leadership talent management is a partnership between executive teams in sustaining talent management processes and HR teams who are responsible for operationalising the processes. As one rail organisation manager in our case study articulated, 'it's ultimately the corporate executive who decides. . . the executive is being responsible ultimately with the HR team doing the work' (executive leader, Australian organisation).

In most successful talent management programs in large organisations there is a high need to ensure line managers are engaged and supported to collect and collate knowledge on employees' abilities and aspirations (McCartney and Garrow 2006). However, the rail case study found that there is often a lack of connection between HR, learning and development teams, line managers and executive teams when it comes to maximising the potential of people's talents. Some of these problems stemmed from an undefined focus on why employee data were being collected and for what purpose. Hence, the systems and resourcing of leadership talent management strategies need to be well thought through and connected to existing management systems to efficiently pursue the purpose of the strategy, as Mumford et al. (2007) acknowledged.

Conclusion

Leadership talent is increasingly needed in organisations to guide the way in rapid change and ongoing uncertainty while at the same time increasing the performance and productivity of people. In this chapter we have set out some of the considerations

facing organisations today as they face challenges in managing talent and thereby sustaining their companies into the future. On face value, leadership talent may appear to be a scarce resource since it may be deemed that not all employees have the skills and abilities to lead others. Through our case study in Australian rail we have identified that leadership talent can be developed further by considering the capabilities, skills and motivation for leadership at different levels such as the executive, middle and frontline of hierarchically structured organisations. As a result, defining what is meant by leadership talent in the specific organisational context is the first step in being able to develop a contextualised strategy. While historically the literature has focused on identifying and developing executive talent, productivity and performance gains can be made in organisations if an equal focus is given to identifying and managing all levels of leadership talent, including the executive, middle and frontline. Our case study illuminated six main considerations for a leadership talent management framework to guide organisations in their quest to sharpen their leadership talent management focus.

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Chapter 13

Literacy in the Workplace

John Benseman

Abstract This chapter considers the challenge of literacy, language and numeracy (LLN) issues in contemporary workplaces, both in Australia and internationally. It firstly considers the gradual recognition that adult LLN is a widespread issue warranting government responses and its links to debates about improving labour productivity. LLN issues among workers are then examined in detail, reviewing their distribution in the workforce and implications for LLN provision in the workplace. Implications of recent research studies of workplace LLN programs are discussed as well as the need to ensure that newly acquired LLN skills learned in courses are transferred back into everyday workplace practices.

National Recognition of LLN Issues among Adults

The history of LLN issues among adults is a relatively short one. Up until the 1970s, there was scant public recognition that a significant proportion of adults struggled to cope with daily demands involving LLN skills; this position was also mirrored among government ministers, departmental bureaucrats and funding bodies (Benseman 2008; Hamilton and Hillier 2006). LLN programs developed by community-based organisations were thought to cater for a small number of adults who had somehow ‘slipped through the system’ and national literacy rates were habitually claimed to be ‘99.9 %’.

In part, this was because there was scant research available on the issue. A few small-scale research studies were emerging at this time on specific groups such as the unemployed, prisoners and specific industry groups, but these results were largely shunned as being relevant only to these groups or written off as biased, designed to support the partisan claims of the steadily increasing body of LLN providers and advocates. Wickert’s (1995) study in Australia and one sponsored by a newspaper group in Canada (Calamai 1987) were the first pieces of larger-scale research to signal that LLN issues among adult populations warranted serious consideration and were not confined to a small number of ‘social cripples’, but involved a much broader cross-section of adults.

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The turning point in most western countries came with the advent of a series of national incidence studies (the International Adult Literacy Survey, IALS) and its later development, the Adult Literacy and Life Skills Survey, ALL) under the auspices of the OECD and Statistics Canada at the turn of the century. More than twenty western countries such as Australia and New Zealand took part in these studies, the results of which have had considerable impact on public and governmental recognition of adult LLN issues. Many countries have undertaken several of these studies, the latter versions of which have provided increasingly sophisticated analyses and added problem solving to the document, prose and quantitative literacy skills being assessed. The latest iteration of these surveys (Programme for the International Assessment of Adult Competencies, PIAAC) is currently underway, with Australia's results due mid-2013 and New Zealand's (as part of a second cohort) in 2015.

While these studies have certainly encountered their critics for their 'narrow HRD' interpretation of literacy (Tett et al. 2012), they have certainly been significant for a range of reasons:

- The findings challenged the assumption that, because many countries had achieved very well in child-based studies such as PISA, they would also have a low incidence of adult literacy problems in the adult population.
- The surveys helped break down the traditional dichotomy of literate–illiterate by assessing literacy and numeracy skills along a continuum.
- They also showed literacy and numeracy skills across three domains in IALS and four (problem solving was added) in ALL and PIAAC, underlining the variable nature of literacy and numeracy demands.
- While it showed some groups to be disproportionately represented among those with low literacy and numeracy skills, it also showed that adults from all groupings were represented in the lowest levels—in other words, literacy and numeracy skills are an issue for all sectors of society, though to varying degrees.
- The findings helped make sense of some public controversies such as academics periodically criticising the academic literacy skills of tertiary students.

Nearly two decades since the first of these studies was undertaken and with governments purporting to be 'evidence-based' in their policy and program development, most of the participating countries have written national LLN policies and strategies (see for example, Standing Council on Tertiary Education Skills and Employment 2012; Tertiary Education Commission 2010, 2012). While the level of funding for these strategies continues to wax and wane with national political fortunes and international parameters such as the global economic crisis (GEC), adult LLN is now almost invariably publicly acknowledged centrestage in educational debates and other related spheres such as health, social services and increasingly workforce development.

The Link to Workplace Issues

Parallel to the emergence of adult LLN into public recognition and debate, most western countries were also grappling with the challenge of staying competitive in the international marketplace in part by improving labour productivity (see for

example IMD 2013). Which factors improve productivity has been hotly debated. For example, the New Zealand Treasury (Harvey and Harris 2008) identified:

- innovation;
- skills;
- investment; and
- access to natural resources,

while their counterparts at the Department of Labour (2009) identified:

- building leadership and management capability;
- creating productive workplace cultures;
- encouraging innovation and the use of technology;
- investing in people and skills;
- organising work;
- networking and collaboration; and
- measuring what matters.

Almost invariably however, any list of factors claiming to stimulate productivity includes some reference to ‘skill development’. This factor is justified because skill development ‘enables innovation, makes workers more capable with new technology, reduces mistakes and inefficiency, workers require less supervision by accepting more responsibility, they communicate better and companies are able to pay higher wages, leading to lower staff turnover’ (Harvey and Harris 2008, p. 16). All of these things are seen to contribute to greater productivity within companies and, cumulatively, nationally.

Most analysts agree that the paramount factor for better productivity is greater investment, but also that skills are a necessary but not sufficient condition in the mix (Keep et al. 2006; Leitch 2006; Mayhew and Neely 2006). However, they also argue that there is a lack of rigorous research on the topic, especially at the micro level of what happens in companies. Even so, some writers (Keep et al. 2006; Leitch 2006) still caution that ‘skills deficits’ are an easy scapegoat in these debates and are often seen as an easy policy lever for policy makers, especially in comparison with other factors such as increasing capital investment.

Some of the need for higher levels of skills is satisfied in the longer term by improving the schooling system and increasing post-school qualifications, but there is still the question of how the current workforce (and especially those in semi- and unskilled jobs) achieves higher levels of skill. New skilled immigrants can go some way towards solving the issue, although using their skills and expertise is not straightforward, especially with those whose languages do not match that of the host country. Inevitably, therefore, the challenge is predominantly to upskill workers currently working and to a lesser extent (in terms of numbers) those workers currently not in employment.

Few dispute whose skills should be upgraded, but identifying the skills to be taught is less straightforward. For while there is strong support for including skills development in efforts to improve productivity, it is interesting to note that few writers spend much time addressing the question ‘which skills?’ Even in major documents

such as the OECD's *Towards an OECD skills strategy*, scant attention is given to identifying skills beyond an initial definition: 'the bundle of knowledge, attributes and capacities that enables an individual to successfully and consistently perform an activity or task, whether broadly or narrowly conceived, and can be built upon and extended through learning' (2011, p. 7). Implicit in many of these documents is a differentiation between:

- specialised technical skills such as operating machinery or instruments; and
- broader, generic skills such as communication or literacy and numeracy.

It is evident that learning new technical skills (e.g. using a new piece of machinery) is necessary in economies that are increasingly mechanised and automated; however, the arguments to include literacy and numeracy are less obvious because their value and impact may be less apparent and immediate. Furthermore, work issues that are related to literacy issues are not necessarily identified as such by employers or supervisors; rather, these issues are seen as being related to general incompetence or the result of personal traits such as personal inadequacies and laziness (Schick 2005). There is however a growing recognition by employers that LLN issues are significant and need to be addressed. In a national survey by Business New Zealand and the Industry Training Federation (Green et al. 2008), the authors reported that after specific types of training (71 % of the total companies replying), communication skills (67 %) and literacy and numeracy skills (49 %) were reported as the next most important.

No firm that had reported a literacy or numeracy problem in their workplace believed the needs were 'very widespread', but 40 % of those firms felt that they were 'moderately widespread'—in other words, they affected a 'noticeable proportion of employees' and had 'some impact on firm operations'. (Green et al. 2008, p. 5)

While historically workplace training has predominantly involved mid- and especially upper-level sectors of the workforce, the emergence of LLN as an issue in the wider context has also filtered through to the workplace as a focus for lower-level workers. Workplace LLN in many ways is the culmination of endeavouring to address LLN as well as labour productivity.

The Size and Nature of the Challenge

One useful benefit of the IALS and ALL national incidence studies has been their ability to generate valid sub-analyses of various national population groups such as ethnic groups, second language groups, regions, age groups and the workforce. One New Zealand report (Satherley and Lawes n.d.) showed that in 1996, 527,000 employed adults had level 1 or 2 document literacy, which increased significantly to 756,000 a decade later.

Another report (Dixon and Tuya 2010) has looked in depth at workers with lower literacy skills using data from the 2006 ALL survey. The study drew on a representative sample of over 7,000 New Zealand residents aged 16–65 years, of whom 12 %

were at level 1 (of five levels) and 28 % were at level 2. The study confirmed that lower levels of LLN skills were strongly related to low educational attainment, belonging to an ethnic minority, having English as a second language (ESL) and working in a low-skilled, low-paid occupation—especially in particular occupational groups such as cleaners, caretakers, labourers, machinery operators and assemblers.

Over a third of the group were ESL speakers. Interestingly, 38 % of this group had done some structured education or training in the previous year, but still less than those at higher LLN levels. They are more likely to receive training linked to qualifications than training provided by employers, usually on-site. The study showed that, although they are not as involved in various types of reading at work (e.g. reading letters, manuals, directions, etc.) as those with higher level skills, just under half of those at levels 1 and 2 still undertake these tasks at least weekly. In another study, Benseman and Sutton (2007) reported that employers use a range of strategies to minimise the impact of poor LLN skills in their companies, including developing an oral culture in the workplace, simplifying documentation, changing work practices and delegating literacy requirements onto a person in the team with the best skills.

Dixon and Tuya also point out that those with low LLN skills are not necessarily concentrated in part-time or part-year (i.e. seasonal) jobs, short-term jobs or small firms. In other words, it is an issue for many in the mainstream workforce.

Implications in the Workplace

There is an increasing body of literature that has analysed the need for LLN skills in workplaces at the macro level (see for example, CBI 2006), as well as research on the degree of match between workers' LLN skills and the level of LLN skills required in their jobs. For example, using ALL data from the 2006 New Zealand survey, Earle (2011) found that 42 % of workers in employment have either a shortfall or partial shortfall between their level of LLN skills and the LLN demands of their job practices; this figure compares with 14 % whose LLN skills are 'in excess' either partially or substantially of the LLN demands of their jobs (see Fig. 13.1 below). People with a skills shortfall or partial shortfall were less likely to say they have enough reading, writing and maths skills to do their job well. The area they felt least skilled in was maths. The report concludes:

Job practices	<i>High</i>	Skills shortfall 9%	Partial shortfall 27%	Matched 27%
	<i>Medium</i>	Partial shortfall 6%	Matched 10%	Partial excess 8%
	<i>Low</i>	Matched 7%	Partial excess 4%	Skills excess 2%
		<i>Low</i>	<i>Medium</i>	<i>High</i>
		Document literacy		

Fig. 13.1 Match and mis-match of literacy and job practices. (Source: Earle 2011, p. 22)

This suggests that within the 40% of people with lower levels of literacy and numeracy, there is a small group whose skills fall short of what may be needed for their jobs and a larger group who may have difficulty performing some aspects of their jobs. (2011, p. 31)

At the company level, employers tend to identify reasonably straightforward LLN needs. For example in the Upskilling Project (Department of Labour 2010), the participating employers were asked what their main overall drivers were for undertaking their LLN courses. The five drivers rated most highly were improving communications, improving staff retention, cost savings, improving attitudes towards work, and improving health and safety. Responses such as improving productivity and increasing profitability came well down the list of responses, while the three rated least important—coping with existing technology, coping with planned technology and encouraging innovation—show that LLN is not rated as particularly important in relation to technology and innovation. These managers were also asked what specific outcomes they wanted their workers to achieve as a result of the programs. The top four outcomes were listening skills, communicating with other workers, communicating with supervisors, and speaking and reading skills. Rated lowest were taking on new work roles, better use of technology and computers, and greater community involvement. Both of these sets of responses show that employers are primarily concerned with resolving the most immediate issues of communications between staff and their supervisors, while longer-term goals such as technology-related skills rate lower than these other more immediate outcomes.

The Response to the Issue

Workplace-based LLN programs have developed steadily in most western countries over the past two decades. In New Zealand, for example, initial funding was allocated to pilot some workplace programs as part of International Literacy Year in 1990, which culminated in the establishment of a national centre, Workbase: The New Zealand Centre for Workforce Literacy Development. This centre has functioned both as a professional resource centre for the sector and a provider in its own right alongside about 25 private and public providers (usually institutes of technology and polytechnics). These providers are funded by a government agency (the Tertiary Education Commission) to run workplace programs (based on learning needs analyses) in conjunction with employers. Funding for this provision has been maintained at a similar level for some years now.

In Australia workplace LLN has historically been delivered within national training packages, where the LLN components are integrated with other training content—‘built in, not bolted on’; operating alongside the industry training packages are a raft of accredited courses that also lead to qualifications. It is in this area that many courses deal directly with literacy and numeracy issues. More recently, the government has released a new foundation skills strategy for adults (Standing Council on Tertiary Education Skills and Employment 2012), replacing the Australian

Language and Literacy Policy of 1991. This national strategy notes that ‘government investment in increasing the literacy skills of adults has a direct and positive impact on labour productivity and gross domestic product per capita’ (2012, p. 9). Strategy objectives include references to the involvement of employers. The strategy document goes on to state:

A priority for Australian governments under the National Strategy is to provide individuals and employers with more information about foundation skills education and training, encourage broader community understanding of the importance of developing these skills, and promote the idea that everyone has a role to play in supporting adult foundation skills. (2012, p. 14)

Section 3.3 then details how the Australian government plans to strengthen foundation skills in Australian workplaces, with clear links to the work of the Workforce and Productivity Agency.

Looking at the numbers of workers with low-level LLN skills identified in the national incidence studies (conservatively say half a million in New Zealand) and the numbers catered for in current LLN programs in total (approximately 40,000 at the time of writing),¹ the questions arise: how adequate is the response to date and is it feasible to address the problem fully in the future? The answer to the first question is immediately obvious: the coverage by current provision (even if provision includes non-workplace programs that workers might attend in their own time) has not even remotely matched the scale of need identified in national surveys. While the validity of the incidence studies has been challenged in some quarters (Elley 1999; Hamilton and Barton 2000), these critiques have been predominantly around the validity of the assessment measures to adequately address the complexity of multiple literacies, rather than the scale of the issue.

The focus therefore switches more to the question of whether provision of any shape or size can ever adequately respond in the future. The hope that improved schooling will at least reduce the numbers of young adults entering the workforce with low LLN skills is soon dashed when school research findings such as PISA are examined (see www.oecd.org/pisa/). It also ignores the fact that the majority of adults are already in the workforce and most of this group will constitute the bulk of the workforce for some considerable time yet. This hope is also tempered by the reality that LLN demands in most jobs are constantly increasing (Felstead et al. 2007), which means that today’s LLN skills are almost inevitably inadequate for tomorrow’s demands.

One solution is to screen workers for their LLN skills when recruiting new staff. This option is certainly more feasible in a tight job market that looks to continue for some time yet. Again however, this solution does nothing for those already employed in companies. Along similar lines, companies can ‘strip out’ or minimise tasks and processes that require LLN skills, especially above a basic level. Already, as Dixon and Tuya (2010) have shown, over half of those workers with low-level skills operate in work environments where they are not required to use these skills on a regular basis.

¹ Australia’s WELL program catered for 72,000 employees from 2007 to 2012 (Third Horizon 2012, p. 3).

The question arises here, are LLN-related demands in future workplaces likely to increase or decrease? Clearly, this will vary considerably across employment sectors, but if jobs survive automation, it is most likely that they will involve LLN elements of increasing complexity (Gray 2006; Shomos 2010). Being able to perform work tasks that require complex LLN skills is likely to become even more crucial for retaining employment than it is at present.

In terms of provision, the chances of substantial increases in government funding on a sustained basis by parties of any political hue look increasingly dim within the current economic climate. While a small number of employers have funded programs independently of government sources, past experience indicates that this is an unrealistic solution at any significant scale. The most likely solution therefore is to review how current funding is used and in particular look to more innovative uses of funds. Some countries such as Ireland (National Adult Literacy Agency 2013) and Turkey (Durgunoğlu et al. 2003) for example have developed large-scale LLN programs broadcast on TV and radio at peak times. Such programs are particularly useful for supplementing more intensive forms of face-to-face provision and for reaching large numbers of learners. Secondly, computer-based and flexible learning distance programs that can be used as stand-alone tuition for higher-level learners and as supplements for lower-level learners also have potential that is yet to be fully tapped. Pathways Awarua (<http://www.pathwaysawarua.com/>) in New Zealand and the Irish distance strategy (National Adult Literacy Agency n.d.) are examples of this type of provision. Thirdly, in the best spirit of lifelong learning, there is considerable potential for non-educational sectors to take up the challenge of responding to LLN needs. Prime examples of this type of uptake are the health sector where LLN is now seen as an important consideration of health education materials, the employment sector and corrections, where LLN has become a major focus of many initiatives.

There has been little explicit debate about how to match responses with the identified need at a national level. In New Zealand a coalition of seven groups (Workbase, Literacy Aotearoa, English Language Partners, Business NZ, Industry Training Federation and NZ Council of Trade Unions with support from Ako Aotearoa) with an interest in LLN, the Literacy Alliance, has endeavoured to lobby government over recent years about the mismatch between the degree of need and level of funding. The group's main focus has been to advocate for increased funding along with extending the involvement of non-educational groups to address the issue.

A more detailed analysis has been undertaken by Scott Murray and colleagues in Canada (Murray et al. 2009). Murray was heavily involved in the IALS and ALL studies when working for Statistics Canada and has since done considerable independent work with his Canadian company DataAngel. Murray argued that there needs to be a better match between what he called the literacy market (subdivided into 12 subgroups according to the nature of their LLN skills) and LLN provision. The increase in funding needed for a more accurately matched response is then justified by the economic returns from improved work performance. Like the Literacy Alliance, Murray argued for broadening the involvement of non-educational sectors in addressing the issue.

The Role of Research

One of the significant developments in LLN generally over the past decade has been the increase in the quantity and quality of research that has been undertaken to inform and underpin many of the sector's developments. The emergence of LLN research has been particularly notable in the UK with the National Research and Development Centre (NRDC), a consortium of UK universities and other research bodies, and in the US with the National Center for the Study of Adult Literacy and Learning (NCSALL), based at Harvard University. Both centres enjoyed significant funding for about a decade, but have fallen on hard times over recent years: NRDC has a much-reduced research program while NCSALL has been disbanded altogether due to budget cuts under the last Republican president, with re-establishment now unlikely under the current rounds of funding cuts.

Both of these centres undertook large research programs focusing on a wide array of LLN topics and issues. Their work was of consistently high quality relative to previous studies and they distributed their results widely through print and web-based resources. While their coverage of workplace LLN was not extensive, they did help to create an awareness of the value of research-informed development, especially in a political environment increasingly demanding 'research-based' proposals, both for retaining funding for current provision as well as for new ones.

In smaller countries like Ireland and New Zealand, the work of NRDC and NCSALL has been used extensively to complement smaller local research programs that have focused on specific issues and programs unique to these countries. New Zealand for example enjoyed a decade of unprecedented research funding (predominantly focused on workplace LLN) until this was almost completely withdrawn following a government change and the GEC.

It is noteworthy therefore that the Australian National Strategy mentioned above includes a separate section on the role of research in its planning: 'For adult learners to get the best outcomes from foundation skills education or training, the system that delivers this education and training and the government policy that supports the system should be informed by up-to-date research and a strong evidence base' (Standing Council on Tertiary Education Skills and Employment 2012, p. 16).

Impact of Workplace LLN Programs

Although there has been growing interest in the role of LLN programs in changing workplace practices, there has been a surprising dearth of rigorous research about this form of provision and in particular about its impact on the workplace until quite recently. Firstly, there are now a number of extensive literature reviews available; these have shown that only a fraction of this writing is based on original research studies (Ananiadou et al. 2003, 2004; Gray 2006; Salomon 2009). Most of the studies (see for example Conference Board of Canada 2005) are based on surveys of opinions about impact (usually employers') or simple post-course evaluations. Over

recent years however, there have been three studies of note that have endeavoured to map the impact of workplace LLN programs with much more extensive research designs.

Wolf and Evans's (2011) UK study of 574 learners across 53 sites assessed changes in both LLN skills and workplace behaviours pre-course and then up to two years after the completion of the courses that were offered to the participating companies. Unfortunately, the great majority of these courses were pre-designed with little reference to the organisational needs of the companies or their workers, virtually none had teaching contextualised and they were predominantly IT-based: 'We expected programs to use sector-specific materials, related to job-specific skills, and proposed to sample on this dimension . . . In fact, use of such materials was almost non-existent' (2011, p. 168). The courses were generally not negotiated with the companies were offered 'cold turkey', and there were no procedures to follow through on their conclusion. It therefore comes as no surprise that the vast majority of the companies did not continue with follow-on courses on their completion.

Overall, the authors reported limited impact on the participating workers and their companies. They found that learners' reading performance showed only small gains a year or two post-course, mainly with ESL learners: 'on balance, there is little to suggest that the Skills for Life courses had any substantial impact on skills' (2011, p. 91). They attributed this lack of impact to their short duration and poor linking to learners' objectives and needs. They were somewhat more optimistic about the courses' impact on the participants' general attitudes to learning (especially for those who took part voluntarily), with most reporting much greater interest in doing courses and many actually following through on this interest. Unfortunately the study had very little to say about the impact on workplace practices: 'there were no major changes in job satisfaction and no significant changes in behaviour which might contribute to productivity, such as willingness to suggest changes in work practices' (Wolf et al. 2010, p. 394). Employers' perspectives were largely restricted to their ratings of the courses: most were very positive about the experience, although no analysis of specific impacts was reported (over half of the managers had changed between pre- and post-course assessments).

A second study of note is the Measures of Success research project in Canada (Palameta et al. in press).² This project studied 226 workplace LLN participants in 18 companies in Manitoba and Nova Scotia. At the time of writing, the final report has not been released but will be available on the research coordinator's website (www.centreforliteracy.qc.ca) by mid-2013. Draft results have been much more positive than those reported in the Wolf and Evans study.

A third study involved 491 workers in 18 workplace courses in 15 companies throughout New Zealand.³ Each of these courses was evaluated and the results cumulated in an overall evaluation report (Department of Labour 2010). The evaluations aimed to answer two broad questions:

² The author was an external advisor for this project.

³ The author was lead researcher for this project.

1. What do workplace literacy and numeracy programs achieve for the learners and the companies they work for?
2. What is the most effective way to organise and run workplace literacy and numeracy programs?

The courses being evaluated were diverse in terms of the industries involved (although all involved semi-skilled labour forces), company size, geographical location, program formats, duration and types of learners. While the courses varied in approach and length, all had been tailored to the needs of the company. A third of them were block courses and the others were run for one to two hours weekly. There was a mix of small-group and one-to-one tutoring.

A comprehensive, multi-method evaluation program was carried out over a three-year period. The evaluations sought a wide range of both quantitative and qualitative data to identify outcomes for the course participants, their workplace practices, the companies they work for and their lives outside work. Of the 491 course participants interviewed and assessed pre-course, of whom 343 (69.8 %) of these participants were also interviewed and assessed post-course, most (18 % of the pre-course total) of those who missed the post-course interviews had left their companies in the period following the initial interviews.

Findings

Of the 278 participants who were re-tested for reading at the end of their course, 86 % showed an improvement in their reading scores, while the reading scores for 4 % remained the same and they decreased for 10 %. Average reading scaled scores increased by 10.1 points out of 100. There was variation in changes in reading scores across courses from zero to 16 points, with 5 courses achieving an average improvement of less than 8 points, and 5 courses achieving an improvement of 12–16 points. Greater gains in reading scores were made by women, participants with higher qualifications and participants taught by providers with high levels of literacy and workplace training experience.

Spec[ification] forms—I used to be hesitant and make mistakes as I didn't read the specs right. Now I've got a better understanding of the specs and confidence to ask.

Oh, reading blueprints is a whole lot easier. I look at it and go ahead with it. It was great when I clicked on to it, it all seemed so obvious.

Two-thirds (66.1 %) of participants made gains in their writing score. Overall the participants increased their scores from 15.6 to 18.1 out of 29. Changes in reading and writing scores were weakly related, with writing scores tending to increase as reading scores increased.

How to fill in incident forms. I do them properly now. Rather than just writing 'broke toe', I give them the full details and a photo too! With the incident forms, I fill them in properly and I'm able to help the new guys now.

There was a limited amount of numeracy teaching: 12 of the 18 courses taught no or little numeracy; five taught some and only one a lot of numeracy. The course

with the greatest number of numeracy learners was hit by a major crisis, resulting in most of these participants being laid off and not completing the post-course assessments. The numeracy assessment data is therefore limited and of little value, although participants still reported changes in their work as a result of the numeracy teaching.

I'm now working out the volume of concrete. The engineers used to come out, now they just double-check it.

I've got a clearer idea of plans, survey pegs and a whole pile of those sorts of things; it nailed it home really. I use correct terminology now and I'm a whole lot more efficient now.

In terms of speaking and listening, course participants were asked, pre-course and post-course, to rate their confidence on a 1–6 scale (1 = low) in speaking to a work-mate or supervisor one-to-one; a small group; a large group; and someone they do not know, such as a new customer. There were small but consistent increases across all four workplace speaking contexts, especially in speaking one-to-one to people they do not know. Around three-quarters of participants (73.1 %) reported that their speaking skills had improved as a result of the course and 77 % said their listening skills had done so.

Oh, communicating—being able to talk to customers. Knowing what I'm doing fully—not just pretending! Speaking up now and then at [company meetings]. I never used to speak up at all.

Managers identified speaking and reading as the two skills where most progress was made, followed by listening. Providers identified speaking as the area of greatest improvement, followed by reading, writing and listening.

Course Impact on Workplace Practices

Overall, 80 % of course participants reported doing their job better as a result of the course, with most of them providing examples of the sorts of things they were doing better. Examples of these changes included reading blueprints, learning company policies, reading maps and street signs, doing paperwork such as hazard reports and accident reports. Those who said they were more confident about doing their job were more likely to report they were doing their job better and those who said their literacy skills had improved were more likely to report they were doing their job better.

Ninety-seven per cent of the comments made about the course were positive. Participants gave many examples of the positive impact of their course on their workplace practices. Most frequently, they reported that the course had had a favourable impact on work tasks requiring reading and writing. Improved oral communication skills for those with English as an additional language was the second most frequently mentioned theme, and improved communication skills for those with English as their first language was the third most common theme.

Yes, I look at it a different way. I didn't understand instructions before. I feel a lot easier. I can do maps now and street signs. I can work them out.

In 12 of the 18 courses, supervisors rated the course participants across a range of elements covering their daily work practices (attitude towards work, ability to use initiative and work without supervision, willingness to attempt tasks, ability to work as part of a team, and completion of paperwork) on a 1–10 scale (1 = low) both before and after the course (they were not shown their pre-course assessments). Around 60 % of all supervisor ratings of the participants increased. The greatest increase in average ratings was for completion of paperwork.

Employers' and Course Providers' Perspectives

Employers and course providers were asked to rate the impact of a range of outcomes for the participants from a list of possible outcomes given to them. Providers reported that the most notable outcomes for their course participants were increases in personal and job confidence, improved communication with other workers and a greater interest in training. These four outcomes were also in the top five outcomes reported by managers, most of whom also commented that communication between management and workers had improved. Another important outcome identified by providers was improved speaking skills for those with English as a second language.

When reflecting on the impact of their course on the literacy and numeracy skills of the course participants, both providers and employers judged that their course had had most impact on speaking, listening, reading and writing skills. Providers reported that the greatest impact was on speaking and employers on speaking and reading.

Course providers tended to report more positive outcomes than the employers, with more providers reporting a greater impact on skills than employers did. The discrepancy between their views is most marked for writing and ESL. This is probably because providers had worked closely with participants from the early diagnostic assessments through to end-of-course assessments.

Effective Workplace LLN Courses

Robert Brinkerhoff (2003, 2005) argued that *outliers* (those on whom the program has the most and the least impact) are the most fruitful sources of data in understanding why programs have not worked in some cases and why they have had high impact in others. Brinkerhoff's 'success case method' helps identify why courses have a high impact on some participants, and helps to identify factors that can then be replicated or accentuated in future courses and, conversely, reveals why courses have low impact, which means that these factors can then be avoided or minimised in future courses in order to improve course effectiveness.

The 18 courses were classified as 'high', 'medium' or 'low' impact on the basis of the following data sources:

- the impact on learners' LLN skills and their workplace practices;
- the impact on participants individually and outside work;

- the degree to which obstacles had been successfully overcome when planning and delivering the course⁴;
- the spread of LLN initiatives in the company beyond the initial course;
- the sustainability of the course over the longer term;
- the degree of buy-in and ongoing commitment from managers and supervisors at the company;
- course attendance; and
- general feedback from learners.

Using these results, four courses were classified as high impact (79 learners), five courses as low impact (50 learners) and the remaining nine courses as medium impact (214 learners). Having classified the courses by level of impact, the distinctive features of each category of courses were then identified. While no single course had all these features, the most successful ones had a high proportion of the features in the list below.

The Company

- All key stakeholders within the company had a clear understanding of the purpose and processes of the course.
- Managers from senior level through to supervisors demonstrated high levels of support for, and awareness of, the courses; they actively demonstrated their support rather than simply verbalising it.
- Course participants had relief workers while attending teaching sessions or alternative arrangements were made to minimise intrusion on company production.
- Teaching spaces were on-site, consistently available and removed from outside distractions.
- LLN provision was integrated into long-term training and company planning.

Providers/Tutors

- Providers supported their tutors in terms of professional support and strong planning and logistics.
- Providers had a high level of experience of running workplace LLN programs.
- Tutors were experienced in both LLN teaching and workplace programs and had LLN-related qualifications.
- Tutors had high levels of commitment and were prepared to be flexible in their teaching schedules.

⁴ Courses that ran smoothly tended to have greater impact on participants and their work.

Logistics

- Employers or providers recruited participants who closely matched the purpose of the course (e.g. clearly had LLN needs or whose work matched the teaching content).
- Course purpose and content were explained clearly to participants at the start of the course.
- Tutors ‘hit the ground running’ from the first teaching session to ensure learner motivation and retention.
- Where particular teaching content was promised to learners, this content was delivered.
- There were clear and ongoing communications between providers, tutors and company personnel.

The Courses

- The courses were run in work time.⁵
- Teaching content that was closely related to companies’ issues was identified in learning needs analyses and the course tutor used company documentation and processes in their teaching.
- Teaching content was simultaneously related to learners’ specific learning needs based on learning needs analyses and their personal interests.

The Learners

- Participants with high motivation and sense of commitment were selected.
- They consistently attended teaching sessions.

Less frequent features of the high-impact courses included the following.

The Company

- Companies had a strong learning culture, evidenced in diverse training programs that involved workers at all levels of the company.
- Companies publicly acknowledged the courses and learner achievements.

⁵ All participants in the project were paid, and a majority attended classes during work time.

Provider/Tutors

- Providers were closely involved in all pre-course processes, especially course planning, publicity and recruitment.
- There were minimal changes in tutoring personnel.

Logistics

- Participants were grouped homogeneously according to LLN skills.
- If applicable, courses were held in the low-demand season.
- There was ongoing contact between tutors and supervisors, including updates on learner progress in relation to work tasks.

Transfer of Learning

One important area that warrants greater research attention is the area of learning transfer. Based on his evaluations of general workplace training programs, Brinkerhoff (2005) has concluded that much of the potential for program impact is lost because of the lack of follow through after courses are run. He argued that a disproportionate amount of resources and time is spent on the courses, while scant attention is paid to pre-course (e.g. careful selection of participants and explanation of the course intent) and post-course (e.g. gaining support from supervisors and managers to incorporate changes in practice) activities. The studies quoted above provide some indication of what happens during and after LLN courses are run, but research specifically focused on this important element of achieving program impact would help round out our understanding of how changes in workplace practices do or do not occur.

While there is a strong body of research on learning transfer in general training programs, there is little specifically on transfer from LLN programs (Cameron et al. 2011). One small study (Benseman 2010) of a company's course for eight factory workers followed these participants over a six-month period to monitor how they transferred the LLN skills they were learning back into their jobs. The study showed that the timing and degree of impact varied considerably with the nature and level of the LLN skills being taught; for example learning to calculate area could be implemented immediately while improving low-level language skills took much longer to achieve. Other factors to influence transfer were the degree of contextualisation in the teaching content, the relationship between the teaching and the learner's specific needs, the degree of support from the learner's supervisors and workmates (ideally involving on-going contact with the course tutor) and the personal commitment of the learners themselves.

Conclusion

LLN issues are a relatively new entrant to the mix of workplace training factors. LLN skills are not only important skills in their own right; they are also a prerequisite for all other forms of training. Training workers to use state-of-the-art machinery and technology can only succeed if they have the requisite LLN skills in the first place. While there are any number of initiatives underway in our education system to improve LLN skills, they are unlikely to ‘solve’ the LLN problem any time soon. The reality is that post-school education, and especially those sectors where there are disproportionately high numbers of adults for whom schools failed, will need to grapple with these issues certainly for the foreseeable future. The question is not whether or not to respond to LLN issues, but how.

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Part III
Innovations in Learning and Development

Chapter 14

Coaching in the Workplace

Roslyn Cameron and Mehdi Ebrahimi

Abstract The use of coaching as a workforce development strategy is the focus of this chapter. Coaching is enjoying a lot of popularity in terms of its uses by organisations internationally with the main purposes for using coaching being for individual development, leadership, and building capacity and employee engagement. This chapter can in no way cover all aspects and genres of coaching but attempts to provide a broad brush approach by discussing some of the key characteristics of coaching through defining it and delineating it from other similar interventions. This is followed by a presentation of the different coaching genres and their theoretical underpinnings before presenting details of two benchmark indicators of the growth of the coaching industry, namely the growing number of coaching associations and the emergence of scholarly journals reporting coaching research. We then turn to the results of four reputable surveys conducted on coaching from Australia, the UK and internationally before concluding with the presentation of a conceptual map of coaching within organisational contexts.

Introduction

In recent years there has been an overwhelming increase in coaching activity worldwide, particularly within organisational contexts. Coaching has a definitive role to play in workforce development and in this chapter we provide a broad-reaching overview of the profession and its uses within organisational contexts before presenting the most recent research coming from a series of surveys from Australia, the UK and internationally. In a previous paper we summarised the state of play of the coaching profession:

Coaching is an emerging profession and covers a diverse range of contexts, genres, models and theoretical approaches. The popularity and use of professional coaches for organisational

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and business related coaching has increased dramatically in the last ten years. This popularity has seen some interesting developments one of which is the dramatic rise in coaching services and consultancy firms and the proliferation of coaching bodies and associations. This has led commentators and researchers within the field to begin to address the need for quality assurance, professional credibility, coaching training, professional standards, ethical conduct and a call for evidence based practice. (Cameron and Ebrahimi 2012, p. 1)

In this chapter, firstly, we define coaching and distinguish it from other related activities such as therapy, workplace counseling, training, management consulting and mentoring. We then present an array of coaching genres and their theoretical foundations before examining indicators of the growth of the profession: the emergence of coaching associations and a growing body of empirical evidence to support the effectiveness of coaching interventions. We conclude the chapter by presenting a conceptual model for workplace coaching within organisational contexts that addresses the relationship and dynamics between organisational development, human resource development and coaching, and the dynamics between external and internal coaching. A key component of this conceptual framework is the key contemporary debates surrounding the coaching profession and a future research agenda.

Definitions

There are several commonly used definitions of ‘coaching’, a term derived from the Anglo-Saxon word meaning ‘carriage’. This word means to take a person from where they are now to where they want to be. Pousa and Mathieu defined coaching as follows: ‘Coaching is largely associated with a one-to-one process of helping others to improve, to grow and to get to a higher level of performance, by providing focused feedback, encouragement and raising awareness’ (2010, p. 34). Bachkirova, Cox and Clutterbuck have developed a more applied definition:

Coaching could be seen as a human development process that involves structured, focused interaction and the use of appropriate strategies, tools and techniques to promote desirable and sustainable change for the benefit of the coachee and potentially for other stakeholders. (2010, p. 1)

In an earlier discussion of internal coaching and coaching culture (Ebrahimi and Cameron 2012, p. 5), we compiled a table of commonly used definitions of coaching as displayed in Table 14.1.

What Coaching is and What it is Not

We will now discuss more specific distinctions between coaching and other related areas. Sometimes delineating coaching from other similar interventions can be more beneficial than merely defining what it is. We now look at what it is not by comparing coaching to and differentiating it from other related activities.

Table 14.1 Definitions of coaching

Source	Definition
Passmore and Fillery-Travis (2011, p. 74)	'A Socratic based dialogue between a facilitator (coach) and a participant (client) where the majority of interventions used by the facilitator are open questions which are aimed at stimulating the self-awareness and personal responsibility of the participant'
Peterson and Hicks (1996, p. 14)	'Coaching is the process of equipping people with the tools, knowledge, and opportunities they need to develop themselves and become more effective'
Clutterbuck (1998, p. 19)	'Coaching is a pragmatic approach to helping people manage their acquisition or improvement of skills'

Coaching Compared with Therapy

Coaching has its theoretical roots in the discipline of psychology (Plaister-Ten 2009; Machin 2010; Neenan and Dryden 2002; Zeus and Skiffington 2000). Although coaching is not therapy, many coaches trained in psychology may adopt or borrow from various therapy models to use in workplace coaching. The purpose of therapy has been highlighted in the literature as a means to explore resistance and negative transference, whereas coaching aims to rephrase complaints into goals. The focus in a therapy session is on the resolution of old pains and old issues, whereas coaches acknowledge their historical impact but do not explore these in depth. Coaches are more inclined to encourage proactive behaviours to move the person forward out of their feelings and into action (Zeus and Skiffington 2000).

Zeus and Skiffington (2000) tabled the similarities and differences between coaching and therapy, which can be beneficial for organisations wishing to clarify the purpose of planned coaching activities and strategies. This can assist in explaining these differences to the clients of coaching programs so the value of each program is understood and respected equally.

Coaching Compared with Workplace Counselling

One similarity between coaching in the workplace and counselling is the importance of the client's perspective, willingness and engagement in either the coaching or counselling process (Machin 2010; Whitmore 2002). In counselling research, scholars believe that the client's perception and motivation to be engaged in counselling sessions is essential in predicting the outcome (Al-Darkami and Kivlighan 1993; Connors et al. 1997; Henkelman and Paulson 2006; Hubble et al. 1999; Kivlighan and Shaughnessy 1995; Lambert and Ogles 2004; Luborsky 1994; Machin 2010).

Table 14.2 Coaching and therapy: Similarities and differences. (Source: Zeus and Skiffington 2000, p. 12)

Similarities	Differences
Both use assessment	Therapists are less self-disclosing than coaches, so the power differential is less in a coaching relationship
Both investigate and clarify values	Therapists rarely give advice, whereas coaches are free to make suggestions, advise, make requests and confront the individual
Both listen and reflect	Therapy tends to deal with dysfunction, either vague or specific, whereas coaching moves a functional person on to a greater success and refers clients on for clinical issues
Both help individuals recognise the potential destructiveness of their actions and feelings	Therapy tends to focus on past-related feelings, whereas coaching is about setting goals and forward action
Both seek to situate the individual in a context of adult development	Therapy is about progress, whereas coaching is about performance

Additionally, goal setting, which is another important stage in the coaching relationship and coaching process (Fournies 2000), is equally critical in the counselling relationship (Bordin 1979). Machin explained that ‘goals are the targets for interventions and the key is the level of agreement regarding these goals’ (2010, p. 45). Due to the similarities between counselling and coaching, and the fact that workplace counselling is another discipline closely allied to coaching (Zeus and Skiffington 2000), confusion remains on how these two areas differ from each other. According to Buzzotta et al., ‘coaching is distinguished from counselling in that coaching focuses on improving job skills and job knowledge, whereas counselling focuses on problems on attitude and motivation or on interpersonal hang-ups’ (1977, p. 50). Furthermore, ‘Counselling in the workplace usually involves turning around under-performance by resolving a particular problem’ (Zeus and Skiffington 2000, p. 13). Such problems can involve stress, anxiety, poor quality work and frequently missed deadlines. Finally, in most cases, counselling involves minimal assessment, whereas the coaching model interfaces with learning and development tools (e.g. 360-degree feedback) and behavioural diagnostic assessment tools introduced at the beginning of the coaching intervention.

Coaching Compared with Training

Organisations throughout the world spend billions of dollars on training programs each year. In recent years a number of scholars have measured and confirmed the effectiveness of employer-provided training on productivity (Barrett and O’Connell 2001; Bartel 1994; Black and Lynch 1996; De Grip and Sauermann 2012; Holzer et al. 1993). However, despite the large investment on training programs, the Center for Creative Leadership has suggested that only 8 to 12 % of those who attend

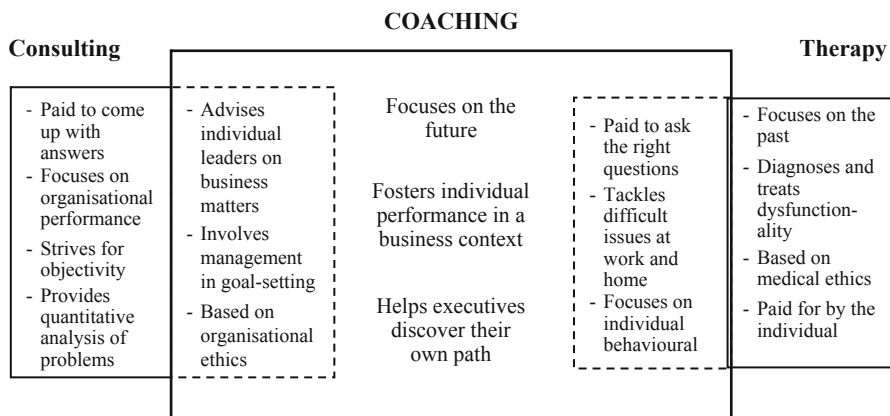


Fig. 14.1 What coaching borrows from consulting and therapy (Source: Grant 2009)

training courses translate new skills and knowledge into measurable performance improvement or business results (Zeus and Skiffington 2000).

A weakness of such training programs is that they mostly do not allow for the skills to be put into practice, which is exacerbated by a lack of feedback or ongoing support. Some of the most important factors that distinguish training from coaching are provided below. Highlighting these differences should not obscure the fact that a coach is unlikely to have the characteristics or skill sets of a trainer or vice versa. Each role has different goals, provides different benefits and focuses on different areas.

- Coaching is about sustained behavioural change, whereas training tends not to bring about major shifts in thinking and action.
- Training tends to reinforce a traditional, hierarchical style of management, whereas coaching is a more democratic, collaborative process.
- Training rarely involves feedback, whereas the coaching process includes ongoing feedback and continuous learning (Zeus and Skiffington 2000, p. 14).

Coaching Compared with Management Consulting

In research conducted by Grant (cited in Coutu and Kauffman 2009, p. 31), 140 senior executives and members of executive coaching training organisations responded to an online survey. The coaches were primarily from the United States (71 %) and the United Kingdom (18 %), and 66 % of survey respondents disclosed that coaching was their primarily source of income. The results showed that coaching may have some similarity to both consulting and therapy, but they differ from each other in a number of ways. Coaching offers a different set of benefits and outcomes that cannot be achieved in consulting, therapy or other forms of professional development activities within the workplace. The main similarities and differences between coaching and consulting as described by Grant (2009, p. 31) are shown in Fig. 14.1,

which confirms that, unlike consulting which primarily focuses on organisational performance, coaching fosters individual performance in a business context.

Consulting Therapy

Opinions vary as to whether coaches should be considered organisational consultants or not (Laske 2006). Zeus and Skiffington (2000) pointed to the fact that management consultants come from a variety of professional backgrounds, including training and development specialists, human resources specialists, and industrial and organisational psychologists. In recent years, many consultants have added coaching to their service. Although the primary function of most management consultants is to work at the organisational level, more and more consultants report that their clients are requesting one-on-one work. Finally, the difference between coaching and management consulting is considered to be an important factor during periods of transition or organisational change:

Consultants gather and analyse data, write reports and make recommendations that are frequently systematic and based on the needs of the organization. They are rarely employed to deal with individuals during the period of transition and change. On the other hand, coaches work with individuals during and after organizational change. (Zeus and Skiffington 2000, p. 16)

Coaching Compared with Mentoring

Mentoring is frequently confused with, or referred to interchangeably with, coaching. Some definitions of mentoring may help to differentiate the two disciplines. Although mentoring has been defined differently in the fields of psychology, human development, human resource management and education, 'the integral purpose of mentoring has been the professional and/or personal development of the individual or mentee' (Larson 2009, p. 120). The majority of studies cited in the literature describe mentoring as a process where a senior member of an organisation actively participates in the career development of a younger professional (Cotunga and Vickery 1998; Larson 2009; Luna and Cullen 1995). Other definitions of mentoring include 'One who offers knowledge, insights, perspective or wisdom that is specially useful to the other person' (Shea 1997, p. 9) and 'A career friend, knowledgeable about your field who advises and encourages' (Rolfe-Flett 1996, p. 3).

Clutterbuck and Klasen pointed out that 'mentoring derives its immense effectiveness in employee learning and development from being an integrated method that flexibly combines elements of the four other one to one development approaches, coaching, counselling, networking/facilitation and guardianship' (2002, p. 16). In spite of the variety of definitions of mentoring, all experts and communicators appear to agree that it has its origins in the concept of apprenticeship, when an older, more experienced individual passed down knowledge of how the task was done and how to operate in the commercial world (Whitmore 2002).

Table 14.3 Coaching and mentoring: Similarities and differences. (Source: Zeus and Skiffington 2000, p. 18)

Similarities	Differences
Both require well-developed interpersonal skills	Mentoring invents a future based on the expertise and wisdom of another, whereas coaching is about inventing a future from the individual's own possibilities
Both encourage the individual to stretch, but can provide support if the person falters or gets out of his or her depth	Mentors freely give advice and opinions regarding strategies and policies, whereas coaching is about evoking answers from the individual
Both shorten the learning curve	Mentoring is usually more specifically focused on career advancement
Both require a degree of organisational know-how	Mentors convey and instill the standards, norms and values of the profession/organisation. Coaching is more about exploring and developing the individual's own values, vision and standards

Zeus and Skiffington (2000) confirmed that, while there are numerous similarities between mentoring and coaching, there are some obvious distinctions between these two discipline areas that need to be explained and clarified for the clients of coaching or mentoring programs, to ensure their expectations of the program's outcome are based on the nature of each program and how it differs from the other. Some of the similarities and differences between mentoring and coaching are listed in Table 14.3.

Coaching Genres and their Theoretical Foundations

A range of theoretical disciplines are drawn upon in the coaching literature, which attests to the range of coaching practices. 'Coaching is an applied field of practice that has its intellectual roots in a range of disciplines: social psychology; learning theory; theories of human and organisational development; and existential and phenomenological philosophy, to name just a few' (Bachkirova et al. 2010, p. 1). A summary of these theoretical approaches is displayed in Table 14.4.

We now turn to look at some of the benchmark indicators for the coaching profession as a means to explore the recent and growing popularity of workplace coaching. The two indicators we present are the establishment of coaching associations and academic journals dedicated to reporting coaching research.

The Growth of the Coaching Profession

Rostron (2009) referred to the consultative dialogue that has emerged around the professionalisation of coaching, and noted the following three global initiatives in the coaching field that have occurred in the last 6 years:

Table 14.4 Coaching theory matrix. (Source: adapted from Bachkirova et al. 2010, p. 10)

Genres and contexts	Primary theoretical traditions	Secondary theoretical traditions
Skills/performance coaching	Cognitive-behavioural Solution focused Positive psychology	Psychodynamic Person-centred Gestalt Existential Ontological Transpersonal Transactional analysis/neuro-linguistic programming (NLP)
Developmental coaching	Cognitive-behavioural Solution focused Person-centred Narrative Cognitive-developmental	Psychodynamic Gestalt Ontological Transpersonal Positive psychology Transactional analysis/NLP
Transformational coaching	Cognitive-behavioural Cognitive-developmental	Gestalt Existential Transpersonal
Executive/leadership coaching	Psychodynamic Cognitive-behavioural Transpersonal	Solution focused Person-centred Existential Ontological Positive psychology Transactional analysis/NLP
Manager as coach	Cognitive-behavioural	Solution focused Gestalt Ontological Narrative Transactional analysis/NLP
Team coaching	Cognitive-behavioural Gestalt Cognitive-developmental Transpersonal	Psychodynamic Solution focused Person-centred Narrative Positive psychology Transactional analysis/NLP
Peer coaching	Cognitive-behavioural Person-centred	Solution focused Transactional analysis/NLP
Career coaching	Cognitive-behavioural Person-centred	Existential Transpersonal Positive psychology Transactional analysis/NLP

- Global Convention on Coaching, which began in July 2007 in New York.
- Dublin Declaration on Coaching of 2008, which recommends establishment of a common understanding of the profession through shared codes of ethics, standards of practice and educational guidelines; acknowledgement of the multidisciplinary roots and nature of coaching; and moving beyond self-interest to address core critical areas in ongoing consultative dialogue.

Table 14.5 Professional coaching associations

Organisation	Year established
International Coach Federation (USA)	1995
Worldwide Association of Business Coaching (Canada)	1997
Association for Coaching (UK)	2002
European Mentoring & Coaching Council (UK)	2002
Association for Professional Executive Coaching and Supervision	2002
Association, Supervision, Coaching & Consultancy Australia & NZ (Australia)	2003
International Association for Coaches	2003
Graduate School Alliance for Executive Coaching (USA)	2006
Association of Coach Training Organisations	2009
Institute of Coaching (USA)	2009

- The International Coaching Research Forum, consisting of internationally recognised researchers, coaching professionals and other stakeholders, which met at Harvard University in September 2008 to produce research proposal outlines to advance coaching as an evidence-based discipline.

Recently, Gray addressed the current state of play in relation to the professionalisation of coaching and made the following point: ‘Claims for professional status and the emergence of standards and awards are typical of the journey that occupations make (or attempt to make) towards professionalization’ (2011, p. 4).

The International Coach Federation (ICF) estimates that there are 47,500 coaches worldwide, and that the current membership of ICF is approximately 20,000 (ICF 2012). The ICF is the oldest coaching association in the world and was established in 1995. Since 2002 several more coaching associations have been established worldwide. This is a strong indication of the recency of the growth of the profession. Table 14.5 summarises some of the major coaching associations that have been established worldwide.

Building the Evidence Base

Another indicator of the growth of the coaching profession is the evidence base of the profession and its associated practices. Passmore and Fillery-Travis (2011) undertook a historical investigation of published coaching research and found that the period from 1937 (the date of the first identified coaching study) to 1999 was a time of slow progress in terms of literature and research into the field of coaching. During the last 10 years of this period there were more published papers than in the preceding fifty. In the years between 1937 and 1999 a total of 93 articles, PhDs and empirical studies were published. It was not until the 1980s that the first signs of substantial growth in coaching literature and research were seen. ‘In order to be accountable for their practices and remain credible in a fast-changing world, coaches would be well served by a strong, inclusive and generative stance on evidence’ (Drake 2008, p. 20).

Table 14.6 Academic journals dedicated to coaching research

Journal	Year established
International Journal of Evidence-Based Coaching and Mentoring	2003
International Journal of Mentoring and Coaching	2003
Coaching Psychologist	2005
International Coaching Psychology Review	2006
Coaching: An International Journal of Theory, Research and Practice	2008
International Journal of Mentoring and Coaching in Education	2012

There are currently six academic journals dedicated to coaching literature. Table 14.6 lists these and the year they were established in chronological order. As with coaching associations, the relative recency of these journals is a testament to the fact this is an emerging field/profession and one that is embracing the need for evidence-based practice within the profession.

We will now look at some recent coaching surveys undertaken in Australia, the UK and worldwide to demonstrate the utility of coaching within organisational contexts and the growth of the field.

Recent Surveys: Empirical Evidence

We will summarise recent research conducted in Australia by the Australian Human Resources Institute (AHRI), and in the UK by the Chartered Institute of Personnel Development (CIPD) and the Institute of Leadership and Management (ILM), along with a large international study conducted by the International Coach Federation (ICF). The major surveys are:

- 2011: CIPD Coaching Climate Survey (UK);
- 2011: ILM Creating a Coaching Culture Survey (UK);
- 2012: AHRI Coaching and Mentoring Survey (Australia); and
- 2012: ICF Global Coaching Study (international)

Key findings from these surveys all point to a growing use of coaching across regions and within organisations.

The CIPD Coaching Climate Survey was administered to 16,853 HR professionals and received 332 responses, which equated to an approximate response rate of 2%. The majority of respondents were from the private sector (48%) followed by the public sector (34%) and some 14% from the voluntary and community sector. Again the majority of respondents represented organisations with more than 1000 employees (39%) followed by 250–999 employees (22%) and 50–249 employees (20%) (CIPD 2011, p. 15).

Coaching was used by 77% of respondents, with four-fifths of those that use coaching reporting they had increased their use of coaching over the previous 2 years. One third reported that their expenditure on coaching was rising. The main finding from the survey was that coaching and mentoring are being used more than ever

before to improve performance. The number reporting the use of these interventions to tackle poor performance and build capacity in good performers had doubled since the CIPD survey of 2009. Most coaching was delivered through line managers or internal coaches; however the use of external coaches had increased from 14 to 20 % since the 2009 survey. The main purpose for using coaching was improving good performance, followed by building employee engagement. The main means to evaluate coaching was stories and testimony followed by KPIs. Many organisations develop evaluation criteria at the beginning of the contracting period. Return on investment (ROI) and return on expectations (ROE) were used by less than 10 % of respondents. Personal effectiveness was the main agenda for a coaching program followed by skills and capabilities (CIPD 2011, p. 4).

The ILM Creating a Coaching Culture Survey was based on telephone interviews with 250 large organisations in the UK. The organisations selected for the survey all employed 230 + employees. The sample size of 250 organisations represented 2.5 % of organisations of this size in the UK. The key findings show a substantial use of coaching (80 %), and the more employees the more likely the organisation will use coaching. Those who are the prime targets of coaching are middle managers; however 52 % of respondents indicated they make coaching available to all staff. Eighty-three percent of organisations used internal coaches, and external coaches were used primarily to coach senior managers or executives. Internal coaches require more support with developmental options (ILM 1998, p. 2). There was a broad consensus about the benefits of coaching both to the individuals and the organisation. Specific benefits included confidence; attitudes and motivation; interpersonal communication; leadership and management; and conflict resolution. The need for better measurement of the effectiveness of coaching was evident: a large majority of respondents measured outcomes; however the methods varied and were inconsistent. The development of a coaching culture was viewed as being key to maximising the benefits of coaching.

Coaching should focus on increasing its scope and availability to create a coaching culture that permeates throughout their workforce. This means that coaching must be supported at the very top of the organization, but not limited to senior executives, and that organizations need to devote resources to developing their internal coaching capability. (ILM 2011, p. 2)

The AHRI Coaching and Mentoring Survey was sent to a sample of senior executives from the AHRI member database. Responses were received from 111 members of this membership subgroup, who answered separate questions on coaching and mentoring. The key findings for the coaching section of the survey were:

- a little more than two thirds of respondents (67.57 %) reported that their organisation employs executive coaches;
- more than seven out of 10 respondents (72.01 %) of the sample that have a coaching program reported that the perception of executive coaching in their organisation is either beneficial or very beneficial;
- HR coordinated executive coaching in 80 % of organisations sampled; and
- support from management was regarded as the key success factor by two thirds of respondents (66.7 %) (AHRI 2012 p. 4).

The ICF Global Coaching Survey 2012 was a large-scale survey which resulted in 12,133 valid responses from across 117 countries. Thirty-one nations each received more than 100 survey returns. Of the total number of returns 7,700 were ICF members (ICF 2012). The greatest number of responses came from the following regions: North America, Western Europe, Latin America, the Caribbean and Asia. The report found that coaches are most highly concentrated in regions where incomes are highest as compared to total populations. Three world regions had 76% of the estimated coach population: Western Europe, North America and Oceania. Key issues facing the industry were categorised as either obstacles or opportunities. The two main obstacles indicated were untrained individuals and marketplace confusion. The two main opportunities were increased awareness of benefits, and credible data for return on investment (ROI) and return on expectations (ROE) (ICF 2012).

All four surveys point to an increasing use of coaching for performance improvement across organisations and to a growing coaching profession that needs to address issues such as training, qualifications and certification of the profession. A test for both the profession and organisations utilising coaching is the need to improve evaluation and measurement of the effectiveness of coaching interventions, whether this is with up-front custom design evaluation approaches, use of existing performance measurement systems, or designing ROI or ROE models.

We now turn to a conceptual model developed to position coaching within organisational contexts.

Mapping Coaching within Organisational Contexts

We would like to conclude this chapter with a framework we have developed (Cameron and Ebrahimi 2012). It consists of a conceptual map to locate coaching within organisational contexts and places coaching alongside organisational development and human resource development (HRD), as depicted in Fig. 14.2. Embedded in this conceptual map are the genres of coaching and the dynamic relationship between the use of external coaching consultants and internal coaching/supervision capacity within organisations. We believe this dynamic requires further investigation, and greater attention needs to be paid to the concept of developing coaching cultures, the role of internal coaching, and models to calculate ROI for the coaching intervention. In addition cross-cultural coaching or coaching in diverse workforces is currently under-researched and in need of more extensive inquiry. The contemporary debates included in the conceptual map point to the stage of development of the profession. More work is yet to be undertaken around several issues: coaching definitions and its delineation from other related activities and interventions; the need for professional benchmarks; and building the empirical evidence base to support the profession and the variety of practices it encompasses within organisational contexts.

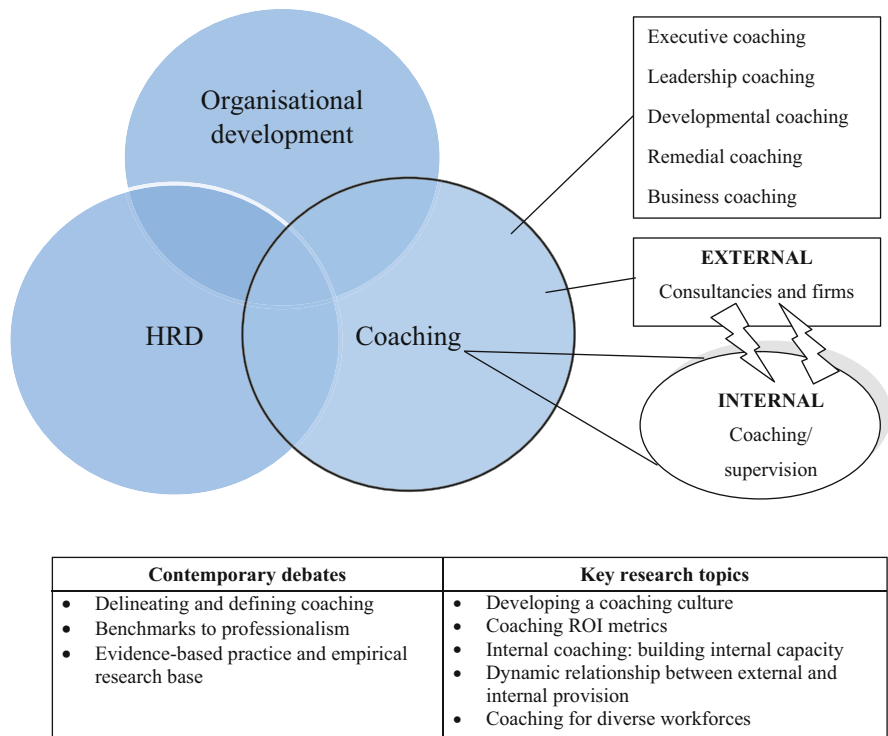


Fig. 14.2 Contemporary map of management coaching for organisational contexts

Conclusion

In this chapter we have introduced coaching and its role as a workforce development strategy. First we defined coaching before comparing and differentiating coaching from other related activities and interventions such as workplace counselling, training and mentoring. We followed this by a discussion of coaching types used within organisational contexts, and coaching genres and their theoretical foundations, before presenting benchmark indicators of the coaching profession such as the emergence of coaching associations and academic journals dedicated to the reporting of coaching research. We presented the results from four recent coaching surveys undertaken in Australia, the UK and internationally, all of which had similar results. There is no doubting the growing use of coaching within organisational contexts and the benefits that coaching has for not only the individual but the organisation. The coaching profession is relatively new and emerging, as evidenced by the establishment of several coaching associations since 2002 and academic research journals dedicated to reporting coaching research since 2003. The major challenges to the profession are the need to differentiate itself from other related activities and to benchmark itself

as a profession. The latter will be assisted by the reporting of an evidence base of research that documents the effectiveness of the profession and its associated practices. One issue that needs greater attention is models and approaches to evaluate and measure the effectiveness of coaching, whether this is with customised benchmarks, calculating ROI with tangible outcomes or calculating ROE through less tangible outcomes, or a combination of any or all of these approaches. The need to develop a coaching culture and the dynamic use of internal and external coaching also needs further investigation as do approaches for coaching diverse workforces and the use of technology in the coaching process, or what is referred to as e-coaching. We have attempted to provide a broad-brush overview of coaching as a workforce development strategy within organisational contexts and to provide readers with a sense of where this growing profession and practice is currently positioned within contemporary organisational life.

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Chapter 15

Contemporary Challenges in E-learning

Kristal Reynolds, Karen Becker and Julie Fleming

Abstract Technology is impacting on most elements of organisations today and workforce development professionals have been some of the leading proponents of embracing technologies and the benefits they offer. E-learning has emerged as at least a complementary offering to face-to-face training, and in some cases has totally replaced more traditional forms of workforce development. This chapter explores the use of learning technologies and the benefits and drawbacks of their use. In particular it focuses on further exploring the issue of a perceived lack of interaction in some e-learning offerings; a factor identified as critical to address in order to ensure effective e-learning. The chapter discusses the issues of interaction and social presence to address feelings of isolation and offers some key considerations for those considering integrating technology into workforce development.

The Growth of E-learning

Organisations have embraced learning technologies at a rapid rate, and have used these technological advances to dramatically change the way learning and development programs are delivered to employees. There is evidence of the increased use of e-learning for workforce development and it is argued that this use of technology will only continue to increase into the future (Bondarouk and Ruël 2010). Benchmarking studies conducted by the Australian Flexible Learning Framework (2010) reinforce that the use of e-learning will continue to grow, both in terms of an increasing number of learners engaging in e-learning, as well as an increasing number of courses being offered via e-learning. This widespread uptake of e-learning has fundamentally changed the environment in which employees and organisations undertake workforce development. Learning can now take place beyond the physical

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boundaries of a traditional face-to-face classroom where training is confined to a time and place. This change offers employees increased flexibility and control in terms of when and where they undertake learning. However, this flexibility can also mean a loss of interaction between the learners and others involved in the learning process, and this loss of interaction has been identified as a shortcoming of some e-learning programs (Johnson et al. 2009).

The purpose of this chapter is therefore three-fold: (i) to review the current outlook on e-learning, its benefits and drawbacks and particularly the issue of social interaction in e-learning; (ii) to examine whether learner differences in their desire for interaction with others during the learning process have an impact on learning outcomes, and (iii) to consider the concept of social presence and how that might help overcome the issue of lack of interaction within an e-learning environment. We begin with an overview of approaches to e-learning, including its history and the perceived benefits and drawbacks within an organisational context. We then look specifically at one of the key concerns relating to e-learning: social interaction and individual learner preferences relating to the level of interaction. We conclude by looking at the theory of social presence and how that may inform future practice and research before offering some practical recommendations for consideration by those involved in developing and implementing e-learning for workforce development.

Benefits of E-learning

E-learning has been, and continues to be, attractive to organisations because it has the ability to address barriers that may exist with traditional face-to-face training methods. Organisations engage in e-learning for a number of reasons: to provide consistent training across geographical boundaries, to reduce delivery cycle time, to increase learner convenience, to reduce information overload, to improve tracking, to lower expenses, and to save time (Chen 2010).

Specifically, benefits to the organisation of using e-learning include the ability to offer training to a greater number of employees whilst achieving greater consistency in training delivery, and improved tracking of course completion and testing (Hill and Wouters 2010). Furthermore, organisations are able to update training materials easily and disseminate them to employees in an efficient manner (Chen 2010). Case studies conducted in Fortune 500 organisations that actively use e-learning have shown that increased access and the ability to reach a geographically dispersed workforce is a key reason for adopting e-learning. This is closely followed by reduced costs (Waight and Stewart 2005).

E-learning undoubtedly offers an opportunity to reduce costs of more traditional forms of training, particularly in terms of reduced travel and accommodation costs, facility costs, and time lost during traditional off-the-job training (Welsh et al. 2003). Although the initial investment in e-learning can be high, once an e-learning course is designed, implemented and in use, the long-term costs of training can be greatly reduced. A case study of New Zealand organisations engaging in e-learning reported that e-learning is flexible enough to suit the training needs of a range of different

organisational situations, from training independent contractors to internal employees, and from small companies to large organisations (Clayton 2009), hence the widespread interest in adopting e-learning for workforce development.

Beyond the benefits to the organisation, however, e-learning also offers benefits to the learners including greater flexibility in terms of where and when they complete the training, the potential to segment their training for just-in-time training needs, and access to a greater variety and number of courses (Hill and Wouters 2010). A clear benefit for employees is that they do not need to be in one place at the same time, therefore they do not need to travel to attend training, particularly when this may mean a disruption to their usual patterns of work. This flexibility means e-learning is suitable for employees on different schedules (for example shift workers). In more advanced e-learning courses, there is also the benefit of learners being able to customise material to meet their needs (Lee et al. 2009). E-learning can cater to different learning speeds and learning preferences. For example, learners can repeat sections of content that they find challenging and yet work quickly through topics with which they are familiar. Overall, the main benefit of e-learning for the learners is increased accessibility: the ability to use the technology anytime and anywhere which allows users to proceed at their own pace and engage in autonomous work. In summary, e-learning has the potential to deliver positive outcomes to both organisations and individual learners. The promise of 'just-in-time, just-enough and just-for-me' is a strong incentive for organisations and learners to seek out e-learning opportunities.

Limitations of E-learning

Although the benefits of e-learning are numerous, it would be unrealistic to think that drawbacks and limitations do not exist. Learning and training are inherently complex concepts and one criticism of e-learning applications is that they are overly simplistic (Brown et al. 2006). Although e-learning use in organisations continues to rise, many of the applications fail to motivate employees to learn (Wang et al. 2010), perhaps due to their simplistic nature. For example, studies of attitudes towards e-learning in organisations have found that the primary barrier was the delivery environment: 28% reported that, due to motivational issues and interruptions, e-learning is not as effective as traditional face-to-face training (Brown et al. 2006). A further contributing factor is the lack of consideration of pedagogical and organisational issues necessary for effective e-learning. The development of e-learning tends to focus on the technical issues of design, rather than how it can meet the organisation's vision and mission, thus resulting in a program that individuals perceive to be ineffective in improving work performance (Wang et al. 2010).

A number of other potential barriers to the effective use of e-learning have also been identified including the age of trainees and their lack of IT skills, accessibility of training, a lack of engaging material, and finally the lack of flexibility and interaction as compared to traditional training (Brown et al. 2006). It is this lack of interaction

and potential isolation of the learner that has concerned many in relation to e-learning and is the key focus of this chapter.

Current Approaches and Issues for E-learning

The increased use of e-learning is not surprising given its purported advantages to both organisations and their employees. Despite the growth and previously discussed benefits of e-learning, a number of authors have argued that it may not be any better than traditional face-to-face training (Sitzmann et al. 2006). An industry report by the Chartered Institute of Personnel and Development (Taylor 2008) echoed this sentiment in that only 7 % of surveyed employees regarded e-learning as amongst the most effective workforce development practices, yet 57 % of employers already use e-learning and a further 27 % plan to use it in the future. It seems some organisations are expanding their use of e-learning without ensuring it will enhance the learning experience. In light of the rapid growth in this area and questions regarding its effectiveness, it is increasingly important to identify how organisations can use e-learning to ensure positive outcomes, both individual and organisational, from its use. This effectiveness issue is often related to the specific approach taken by the organisation implementing e-learning.

The increase in organisational uptake of technology in learning environments has resulted in the emergence of a variety of e-learning formats. A common way to characterise e-learning courses is as synchronous or asynchronous in their delivery methods (Welsh et al. 2003). Asynchronous e-learning refers to courses that are available at any time for learners to work through at their own pace. In this type of e-learning, communication does not take place in real time and there is no live component to the training. This may include modules where learners work through at their own pace or discussion boards where learners can post messages for others to respond to in their own time. In contrast, synchronous e-learning occurs at a certain time, is delivered in real time and communication is instant albeit via technology. Many forms of online seminars, web conferences and instant messaging are examples of this type of learning.

E-learning is beginning to move from purely computer-based learning environments to more sophisticated blended learning. Blended learning consists of a combination of e-learning and traditional face-to-face training (Shivetts 2011) and it is growing in popularity in workforce development. Due to the complex nature of learning and development courses, many organisations are now choosing to combine their traditional 'offline' training delivery methods with new 'online' methods. For example, an e-learning course may be one component of an employee induction course that also has a face-to-face element. This blended approach allows organisations to harness the opportunities presented by technology whilst maintaining the personal, interactive approach of traditional classrooms. However, much of the e-learning currently provided by organisations tends to be asynchronous in nature, where employees can access and complete the training at a time convenient for them. This

Table 15.1 Adult learning principles and their implications for e-learning. (Source: adapted from Knowles et al. 2005; Colton and Hatcher 2004)

Adult learning principles	Summary of principle	Implications for e-learning
Learner's need to know	Adults want to know why they need to learn something before learning it	Orientation session, self-evaluation, record keeping to track progress
Self-concept of the learner	The self-concept of adults is heavily dependent upon a move towards autonomous and self-directed learning	Computer conferences, self-directed learning, no competition, share in evaluation, mutual inquiry
Prior experience of the learner	Prior experiences of the learner provide a rich resource for learning	Group discussion forums, projects, context of everyday life, simulations, peer helping, debates, role playing
Readiness to learn	Adults typically become ready to learn when they experience a need to cope with a life situation or perform a task	Models, counselling, tasks related to developmental stages
Orientation to learning	Adults' orientation to learning is life-centred; education is a process of developing increased competency levels to achieve their full potential	Problem-solving exercises, threaded discussions, class calendar
Motivation to learn	Motivation for adult learners is internal rather than external	Activities that promote development of positive self-concept, deal with time constraints, respectful climate, stimulating tasks, enthusiastic atmosphere

approach is commonly seen in the provision of competency and compliance training for employees, for example, fire evacuation or codes of conduct. Whilst meeting the immediate need for information dissemination, this approach has led many to question whether e-learning can really deliver higher-level learning outcomes when learning is an inherently complex process.

Interaction and E-learning

Most learning theories contend that human interaction is a vital ingredient to learning. In fact, a basic tenant of adult learning theory is that a learner's activity, involvement and effort in their learning ultimately relates to their success or failure (Knowles et al. 2005). Table 15.1 summarises the six key adult learning principles (based on Knowles's early work) and highlights the implications for the use of e-learning in workforce development.

The nature of work is becoming increasingly social, yet methods of workforce development such as e-learning have the potential to be impersonal and isolating

(Derouin et al. 2005). This is a concerning development in the field of workforce development as interactions are often the means by which information is transmitted and knowledge is constructed. For effective learning to occur, training needs to be presented as an active undertaking, where learning is a social process taking place through interaction and communication with others (Tu and Corry 2002). There are a range of interactions required for learning that have an influence on the learning outcome. These include facilitator–learner and learner–learner interactions. These types of interactions allow for fundamental learning activities such as asking questions, voicing opinions or disagreeing with a point of view, and in order to be successful e-learning may require the modification of the manner by which these interactions occur. In fact, it has been found that engagement and social interaction is positively linked to a host of desired outcomes such as satisfaction, perseverance and better work performance (Chen et al. 2008). In a time when enhancing and developing interpersonal skills is vital to an organisation's success, it is important to explore the impact of the e-learning environment on individuals and the paradox between an individual's social nature and the potentially isolating nature of e-learning.

Depending on the type of e-learning course delivered by an organisation, the amount of interaction experienced by the learners will vary significantly. Social interaction is important for social processes relating to group formation and dynamics and often learning tasks will only be effectively accomplished when groups feel a strong social cohesiveness, sense of belonging and trust (Kreijns et al. 2011). Lau and Tsui argued that learners 'need to go through the processes of knowledge collaboration, exchange, sharing, acquisition, creation, distribution, dissemination, storage and personalisation in order to acquire knowledge' (2009, p. 1). The process of brainstorming and sharing ideas during social interactions can result in enhanced knowledge and knowledge transfer, and has been found to influence e-learning satisfaction (Sun et al. 2008).

If social interaction is important, its absence in some forms of e-learning may have consequences for workforce development professionals. For example, learners may feel less satisfied, experience less motivation to learn and be less willing to engage in similar courses in the future. In fact, Mulenburg and Berge (2005) researched students' perceptions of barriers to learning in an online environment, finding that the single most significant barrier to students learning online was a lack of social interaction. They also found that there was a strong association between social interaction and effectiveness of online learning, as well as between social interaction and enjoyment of online learning.

There is also a question of the broader effectiveness of e-learning when social interaction is present or absent. A study investigating the relationship between student interaction, sense of presence, and performance in an online university course found positive support for the relationship between student perceptions of interaction and student performance. However when considering not just perceptions but actual interaction, there was no performance difference between students with high, moderate or low interaction rates (Picciano 2002). We therefore propose that the relationship between interaction and performance is highly complex and is not as easily addressed as many would anticipate.

Table 15.2 Summary of selected works on interaction and isolation in e-learning. (Source: adapted from Knowles et al. 2005 Colton and Hatcher 2004)

Author(s)/year	Summary
Arbaugh (2000)	Found support for their hypotheses about interaction: 'perceived interaction difficulty will be negatively associated with student satisfaction with an Internet-based course' (p. 36); and 'perceived instructor emphasis on interaction will be positively associated with student satisfaction with an Internet-based course' (p. 37)
Beaudoin (2002)	Assessed whether limited interaction online (low-visibility students) compromises learning in an online environment. Results suggest that fully engaged, highly participatory learners tend to perform strongly in graded assignments, but that minimal online participation does not compromise grades. The grades suggested that low-visibility students are dedicating more time to reflection and processing of course material, which translates to stronger assignments than those submitted by students participating at an average level
Burnett et al. (2007)	Assessed which dimensions of interaction (frequency, intensity and topicality) contribute to student satisfaction/dissatisfaction. Results indicated some support for the statement that the less frequent the interaction, the more likely it is that students will express dissatisfaction with the course
Derouin et al. (2005)	The authors performed an extensive review of the current state of e-learning. They presented 'lack of engagement' to be a challenge for e-learning development. They suggested that collaboration and interaction is a way to engage learners
Johnson et al. (2009)	Investigated factors that affect learning effectiveness. Results showed that trainee interaction is positively related to satisfaction and course performance
Muilenburg and Berge (2005)	Reported on a study that determined the underlying constructs that comprise student barriers to online learning. The single most important barrier to students learning online was a lack of social interaction

The literature regarding the importance of interaction in e-learning is extensive. There have been numerous studies on the relationship of interaction to learning. Many researchers (a small selection of these is shown in Table 15.2), support the concept that facilitator–learner, learner–facilitator and learner–learner interactions are essential elements within e-learning design.

It becomes clear from findings of previous research that interaction should be a key concern for all those wishing to use e-learning for workforce development as it has the potential to improve learning outcomes or, where it is not present, to be a barrier to learning.

Individual Preferences

Along with interaction, learner characteristics have also been identified as an element likely to have an impact on learning outcomes in an e-learning environment (Hill and Wouters 2010). Research in virtual settings has concluded that student characteristics

have an important influence on learning outcomes, which is consistent with findings in traditional face-to-face training settings. In addition to the barriers faced by learners in traditional face-to-face training, an e-learning environment presents new barriers, such as a sense of isolation, which need to be overcome in order for effective learning to take place. However, individual differences in learners' desire for interaction with others during the learning process are also likely to be important to learning outcomes.

People as social beings have a basic need or desire to interact with other people, although to varying degrees. The need to be with other people is known as a need for affiliation or sociability. McClelland (1961) coined the term affiliation in early studies, identifying three basic needs that people develop and acquire from their life experiences: achievement, affiliation and power. He argued that people tend to have a dominant bias towards one of these three needs. McClelland's theory states that employees who have a high need for affiliation place a high value on social mixing and relationship building. As well as improved performance when connections are strong, those who have a high need for affiliation are more inclined to maintain interpersonal networks, prefer feedback on how the group is performing rather than individual feedback, have a high need for social approval, and fear rejection and negative feedback (McClelland 1961). When developing e-learning it is critical to ensure that those with a high need for affiliation are given the opportunity to interact, whilst those with other needs are not forced to move beyond their preferences; this is a difficult balance to strike.

Research has examined the relationship between student interaction and learning in an e-learning environment, specifically focusing on the 'invisible' students (those with low levels of interactivity), and whether their preferred learning styles influenced their online behaviour (Beaudoin 2002). Students were surveyed on the time they spent on course-related activities, their learning styles in an online environment, and what prevented them from interacting. Results indicated that some students simply prefer not to interact. Seventy-five percent of students responded that they preferred to read what others had written than to make comments themselves, and approximately half identified themselves as autonomous workers who are not inclined to participate in group situations. Statistics showed that high-visibility students received higher mean grades; however low-visibility students performed better than just average students. This suggests that visibility (and interactivity) only made a difference for those who prefer higher levels of interaction. It is possible that low-visibility students spend more time reflecting and processing information, suggesting that they simply possess a different learning style and may not need to participate actively to do well.

Even though social interaction is considered critical to effective e-learning, research on individual preferences illustrates the unique nature of an employee's learning style and the need for social interaction to be adaptable within an e-learning environment. Simply forcing interaction within an e-learning course may not be the answer, and in fact may be detrimental to the learning of those who do not wish to have high levels of interaction. An element of communication theory called social presence may in fact hold the key to this challenge.

Exploring Social Presence

Establishing connectedness for learners appears to be a key issue for e-learning even if the individual does not have a preference for high levels of interaction. The question then becomes how to ensure that there is a sufficient feeling of connectedness to meet the needs of all learners. Social presence theory, an element of communication theory, suggests that a critical success factor of any communication medium is the extent to which social presence is incorporated into the medium (Short et al. 1976). So even when considering media such as telephone or radio, having a sense of interacting with or being connected to other individuals can lead to higher engagement in the communication process. Since the idea of ‘presence’ in technological environments has gained increased interest, researchers have begun to redefine presence within the context of individuals communicating via digital communication networks. Many have argued that social presence is an important determinant of participation and interaction (Gunawardena and Zittle 1997) and thus it can reduce the potential for learner isolation, resulting in enhanced learning outcomes.

Social presence in an online environment refers to a measure of the feeling of community that a learner experiences even if they do not necessarily directly interact with others (Tu and McIsaac 2002). However social presence theory also suggests that it may also be possible for a student to interact with others and still not necessarily feel like they are part of a group or cohort (i.e. they lack a feeling of social presence even with the opportunity for interaction). It is argued that social presence is a vital element and is necessary to foster online social interaction, and that learning environments that display high levels of social presence create a climate that supports social interaction (Tu and McIsaac 2002). It has also been found that social presence is a strong predictor of trainee satisfaction in computer-mediated environments (Gunawardena and Zittle 1997). This satisfaction is important to workforce development generally, as it has been shown that there is a relationship between training participants’ initial satisfaction with the training and the extent of change in work-related behaviours (Faerman and Ban 2010), the ultimate purpose of training.

As e-learning courses become richer in multimedia use, there appears to be an assumption that the need for the presence of a human facilitator lessens. One of the issues associated with this is that effective learner–facilitator interaction is often difficult to initiate in digital environments. In place of human facilitators, online courses often incorporate different means of communication and interaction such as chat rooms and discussion forums (to at least provide for learner interaction). The use of ‘virtual instructors’ is also emerging, to guide the learner throughout an e-learning course. Whilst these developments may not fully address the need for social interaction for some learners, there has emerged a focus in research and practice on how to build the feeling of ‘social presence’ into e-learning to create a feeling of connectedness and engagement with the learning.

Whilst social presence has been acknowledged as being of critical importance to e-learning, understanding exactly what this means and how to put it into practice has been much more difficult. There has been a widespread lack of consensus on the

definition and conceptualisation of social presence. In fact, it has been said that ‘it is often hard to distinguish between whether someone is talking about social interaction, immediacy, intimacy, emotion, and/or connectedness when they talk about social presence’ (Lowenthal 2010, p. 125). Social presence is most commonly defined in the literature as the ‘degree to which a person is perceived as “real” in communication’ (Gunawardena and Zittle 1997, p. 9), and there appears to be some level of agreement that when a communication medium demonstrates social presence, the user has a ‘perceptual illusion of non-mediation’ (Lombard and Ditton 1997, p. 10). Such an illusion occurs when a person fails to perceive or acknowledge the existence of a medium in their communication environment and responds the way they would if the medium were not there; just as if they were directly communicating personally with another individual. This could include such examples as the use of flight simulators to train airline pilots. Using a simulator to demonstrate situations they may face on the job, particularly when using physical surroundings replicating a cockpit, removes the feeling of ‘training’ and at times trainees can immerse themselves to the extent that they forget the cockpit is not ‘real’.

Creating Social Presence to Build a Sense of Community

The goal of creating social presence is to create a level of comfort and a sense that there is some level of presence of a guiding facilitator even if the e-learning is asynchronous. Garrison et al. (2000) supported the idea of presence as an important determinant of an educational experience, which is reflected in their model of a community of enquiry. They propose that learning occurs through the interaction of three elements: (a) cognitive presence, (b) teaching presence and (c) social presence. As Garrison et al. proposed, ‘The elements . . . can enhance or inhibit the quality of the educational experience and learning outcomes’ (2000, p. 92). Table 15.3 further describes each of these elements and suggests indicators of their existence in an e-learning environment.

Garrison et al. (2000) described that, while social presence may be the most natural of the types of presence to achieve, it is the overlapping relationship of all three presences that determine the quality of the e-learning experience and support meaningful learning.

Tu and McIsaac (2002) also recognised that the extent to which the learner believes they are part of a larger learning community is an important aspect of social presence. This feeling of community is influenced by two components of social presence: intimacy, which includes functions such as physical proximity and conversation; and immediacy, which is the ‘psychological distance between a communicator and the recipient of the communication’ (Tu and McIsaac 2002, p. 134). The key to successful e-learning then may lie in the extent to which the learners feel engaged with the learning and with others who may be involved.

Table 15.3 Elements of presence and indicators for e-learning. (Source: based on Garrison et al. 2000)

Element	Description	Indicators in e-learning
Cognitive presence	Extent to which participants are able to construct meaning through sustained reflection and/or communication	Information exchange, resolution (beyond exploration), connecting ideas and applying new ideas even in asynchronous environments
Teaching presence	Design of the educational experience and the facilitation of learning for the purposes of creating meaningful learning outcomes	The feeling that someone is defining and initiating discussion topics, sharing personal meaning and focusing the discussion
Social presence	Those involved are able to 'project themselves socially and emotionally, as real people (i.e. their full personality), through the medium of communication being used (p. 37)'	Emotional expression, open communication, purposeful relationships and group cohesion

Key Considerations for Practice

The previous discussions of research and literature in the area of e-learning provide a sense of the criticality of ensuring sufficient social interaction and social presence in e-learning while also allowing for individual preferences regarding the extent of interaction. Based on the issues raised in this chapter, it is possible to point to some key considerations for workforce development professionals involved in planning and implementing e-learning.

First, it is clear that interaction is important to all learners; however the extent of its importance will differ between individuals. Those designing and implementing e-learning need to consider how to encourage interaction with either the material, other learners or facilitators, in order to actively engage learners in the learning process. This may mean providing opportunities for discussion relating to the topics being covered via online forums or webinars to engage with the topic in an interactive way. However, the most critical issue in this recommendation is that individual learners need to feel free to choose the extent to which they interact either with the material or with one another; no different to the choice they make in a classroom environment. Providing this level of 'choice' is in keeping with fundamental principles of adult learning and has been shown to provide a level of control to the learner.

Second, it is critical that those designing and facilitating e-learning are aware that the amount of interaction by learners does not necessarily directly link to the amount of learning that is occurring. It has been shown that, just because some learners choose not to interact as often as others, it should not be assumed that they are learning less. This means that indeed some learners 'lurk with intent' and allowances should be made for these students to do so if it is their preferred method of learning.

Finally, and possibly most importantly, workforce development professionals planning and implementing e-learning need to consider how they might build social presence into e-learning regardless of the form the e-learning may take. For synchronous forms of e-learning this may entail ensuring a sense of community is

built early in an online course by generating sharing of personal stories and providing an opportunity to reflect with other learners and the facilitator. In the case of asynchronous e-learning, opportunities can still be provided to build connections, whether by reflections and discussion on discussion boards, or through building activities and questions into the learning material itself to prompt the learner to engage in an active way with the content and feel that there is a 'guiding presence' within the e-learning.

Conclusion

With the fundamental changes that e-learning brings to workforce development, careful consideration needs to be given to how to harness the opportunities and overcome the limitations to benefit individual learners and organisations. We have examined the relevant literature and research to clarify the impact of social presence, interaction and individual preferences in e-learning. MacInnis has argued that 'knowledge advancement occurs not only by studying and developing constructs but also by conceptualizing their relationship to other concepts' (2011, p. 141). In this chapter we have considered the constructs of social interaction and individual preference for interaction and considered how social presence theory may inform this discussion.

Conceptual advances related to theories are critical to both researchers and practitioners for a number of reasons: conceptualising relationships helps clarify the workings of the world around us, understanding 'why' fosters better prediction of the outcomes that managers care about, they help refine our understanding of the world by understanding the conditions under which actions will or will not produce desired outcomes, and they are critical to knowledge development. This chapter is a small step in building clarity around the relationships of social presence and interaction, and the impact of preference for affiliation in order to achieve better e-learning outcomes. Understanding the links between these constructs will provide organisations with indicators of successful approaches to e-learning, as well as ensuring that the e-learning being offered is delivering maximum results for both learners and organisations.

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Chapter 16

Simulating Work: Can Simulators Help Develop a Workforce?

Lydia Kavanagh, Lesley Jolly, Liza O'Moore and Gregory Tibbits

Abstract The aviation model of simulator training emphasises realistic physical conditions and practice of emergency responses. Its apparent success has led to the adoption of simulators in other industries such as rail. Relatively light levels of use of the simulators in that industry indicate that simulators may not fit well in all industries, no matter how similar their operations may seem. This leads us to ask what needs to be simulated in workplace development settings and whether better-targeted simulation might expand the ways in which simulators can be used. Much of the existing technical discussion of simulators comes from a human factors perspective which focuses on micro-processes in performance. We argue for a more socio-cultural and socio-technical position that simulators can develop workforce competency only when jobs are understood in their socio-cultural settings and the role of technology is understood as relative to and determined by that setting. We also present ways in which industry can approach the identification of targets for simulator use and implementation strategies. These suggestions have the potential not only to save money but also contribute to a more professional and engaged workforce.

Introduction

A recent Australian government report (AWPA 2013) has emphasised that in today's world of technological advancement and globalisation maintaining prosperity and productivity is a matter of 'using knowledge and skills effectively at work [and]

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further developing knowledge and skills in the workplace' (AWPA 2013, p 9). The report went on: "To manage change and make the most of future opportunities, "adaptive capacity"—preparing people and workplaces to respond flexibly and creatively to changing circumstances—will be essential' (AWPA 2013, p. 9). A role is envisaged for the use of technology in developing such capacity, although it is recognised that technological innovation is inherently difficult to predict and plan for. The function of such reports is to set long-term goals but having set them it can be difficult to see what the next step should be in pursuit of the goal. How do we get to there from where we are now? Here we take the position that technological innovation often builds on existing systems. In this chapter we reflect on the longstanding use of simulators to develop workplace skills and ask how these existing technologies might better serve the needs of workplace development. Our immediate data comes from a two-year study of the use of simulators in the Australian rail industry but we seek to draw general conclusions/recommendations that might be applied across a range of workplaces.

Most people's image of a simulator is of the kind used in aviation for pilot training, and in particular for emergency situations. Despite a level of general awareness of simulators and their uses, their effectiveness is far from settled. Morris and Moore (2000) and Bell and Waag (1998) made the point that even in aviation not much is known about just what is learnt during emergency training in the simulator nor how such training sessions should best be structured. In aviation, research indicates that mental workloads (that is, the cognitive demands on the trainee as well as aspects like coping with stress) between simulator and actual flight training for ordinary tasks do not statistically differ (Magnusson 2002; Dahlstrom and Nahlinger 2009), suggesting that the simulator is a good replacement for routine performance in a real plane. In the aviation industry, the expense and risk of using the real thing thus makes simulator training a good replacement for hours in the air.

However, questions remain about whether the simulator can mimic the demands of a high-stress emergency situation or a rarely encountered scenario. Practice of emergency procedures may be recalled during a real emergency without that being enough to avert disaster (Dahlstrom et al.). Simulators are assumed to provide more appropriate training for such eventualities than alternative methods such as role play because they usually involve more workload demands—but we have argued elsewhere (Kavanagh et al. 2013) that this only holds if scenarios are constructed that place the trainee in close-to-real situations involving the whole range of job skills. However, training for emergencies cannot be provided in actuality due to the risks involved; therefore it is evident that simulators may be the most effective training devices because they can offer a very close facsimile of reality. Scenarios can be devised that are not replications of daily routine only but that present rare or changing circumstances and so can foster the adaptability called for in the report cited above (AWPA 2013). It is these opportunities provided by simulators that we will explore in this chapter.

Although the simulator has the potential to capture the full complexity of work, whether that means dealing with multiple tasks at once, maintaining alertness for the uncommon and the unexpected, or dealing with monotony (Dunn and

Fig. 16.1 Interior of an early model full-cab simulator used in the Australian rail industry



Williamson 2012), it is most often used as a training device only, providing practice in a pre-defined set of tasks. Aviation has expanded the use of simulators in training to cover crew resource management training (essentially teamwork approaches) and this has also been advocated in rail, as has the incorporation of simulator sessions into competence assurance processes (RSSB 2007). But training and its associated assessment are only part of the story. Building the 'adaptive capacity' required for workforce development entails identifying existing skills and capacities that might be useful in the future and providing opportunities for those skills to be practised and developed. We see three instances when simulators could be used in this way: (1) at recruitment (Tichon and Diver 2012), (2) during training, and (3) in dedicated development sessions which might be incorporated into regular competence assessment or management review, or in the event of changes in the operating conditions of an industry.

Before exploring this topic further we need to pause to discuss what we refer to when we use the words 'simulator' or 'simulation'. The analogy with aviation summons up visions of realistic full cockpit simulators, and this model has been adopted widely in rail and in this chapter. When new locomotives are commissioned they may even come with full-cab simulators that incorporate full motion simulation. These simulators are replicas of the inside of the driver's cab and the controls work just as they do on the real thing (Fig. 16.1). The external world of rail 'track and traffic' is most commonly represented by computer graphics, which aim to mimic the main cues in the environment such as signals and curves without being too realistic.

Simulation however covers the wide range of strategies for simulating work in use elsewhere, from classroom-based role plays to immersive graphic environments to PC-based part-task simulators that concentrate on one aspect of the job. The Railway Safety Standards Board defines a simulation as 'a model of real activity created for training purposes or to solve a problem . . . reproduced not necessarily

by machine' (RSSB 2007, p. 7). However, the nature of the 'real activity' needs careful consideration. Merely mimicking aspects of the task, such as applying correct procedure, may not be sufficient to produce the behaviours that will enhance safety and performance, as the aviation research cited above suggests. We have argued (Kavanagh et al. 2013) that simulations need to model the target skills or the principles underlying those skills, rather than just procedure, and we have defined simulation for training purposes as *a learning experience in which the learner applies and practices the target skills and knowledge in conditions that mimic actual practice*. For the purposes of this chapter, we will consider the target skills and knowledge to include underlying competencies (that is, the skills of the employee) that may contribute to the future adaptive capacity of both the worker and the industry.

In role play and games, 'social actors play roles and co-construct social organization while utilizing the available resources according to the rules' (Giddens 1993, cited in Klabbers 2009, p. 457) The emphasis is on the negotiation of how action will be organised, rather than the putative aims of the scenario being played out. It is therefore no surprise that a report by RSSB (2007) described role play as the most suitable kind of simulation for communication training. PC-based simulations are often more explicitly 'part-task' training devices; for instance there are programs to train drivers in finding faults and failures on trains.

A crucial issue with any kind of simulation is the question of what exactly is being simulated as this will have a direct effect on what can be learnt. We have observed a tendency to use the full-cab simulator, which has a close physical resemblance to the driver's cab, as a copy of the train, which leads to a tendency to focus on train handling skills only. More complex aspects of the task such as network awareness and predictive driving, which could be incorporated in the simulation as additional learning outcomes, are often ignored. Here we want to argue that in all simulation there is a need for the device or process to simulate conditions that prompt actual work behaviours, including coping with workload stress or monotony as appropriate. As we will argue, this does not entail that the simulation looks like work, as long as it provokes the behaviour required of the operator under work-like conditions.

Methodology

We draw here on an evaluation project undertaken on behalf of the CRC for Rail Innovation: P4.103 Evaluation of Simulators. Members of the research team undertook 18 field visits to sites in Sydney, Rockhampton, Mackay, Brisbane, Newcastle, Melbourne, Adelaide and Perth, and on one occasion a researcher rode in the cab of a train from Brisbane to Taree and back. The duration of these visits varied from one to five days. We visited operators who used full-cab simulators, some of whom used other simulation techniques and some of whom used no simulation at all. As well as these observations in simulators, classrooms, management meetings and on-track, we also conducted interviews and focus groups with trainers, trainees, and training and other managers, and we analysed training documents. The following framework

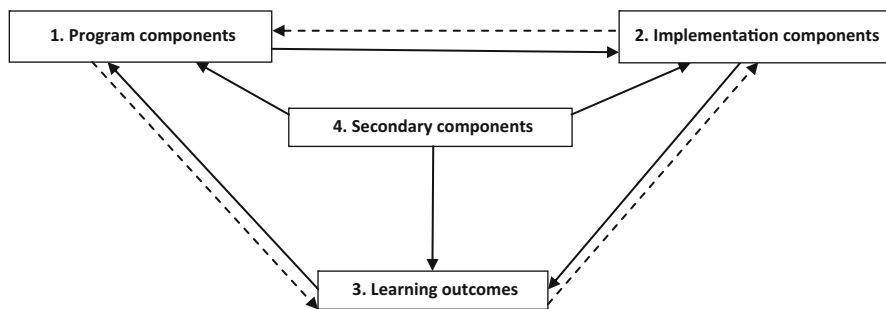


Fig. 16.2 Components of evaluation. (based on National Research Council 2004, p. 40)

(Fig. 16.2) was adopted to guide the fieldwork and provide inter-observer reliability. In addition the whole research team discussed each site visit in detail to ensure consistency of focus in analysis and reporting.

The first three components might be considered core elements of curriculum and include content and sequencing (program components), resources and processes (implementation components) and learning outcomes, which include non-content attributes such as efficiency and attitude as well as content attributes. The secondary components are socio-cultural aspects of the system such as external intervention and unanticipated influences. In our study these were indeed found to have significant consequences for all aspects of the use of simulators, as the model suggests.

We adopted a realist evaluation approach (Pawson and Tilley 1997) in analysis and reporting to address the question ‘What works for whom under what circumstances?’ (Kavanagh et al. 2013). Overall we found that simulators are not used in rail as often as they could be and their efficacy is questioned by trainees and some trainers due mainly to socio-cultural expectations.

The Use of Simulators and the Culture of the Workplace

Socio-cultural factors were found to be highly influential in the way the rail industry uses simulators and we can expect that they will have to be taken into consideration in other settings also. Railways are conservative workplaces (Evans 2009). The traditional railway training, based on long and varied involvement in the industry culminating in driving experience under a senior driver, is still the ‘gold standard’ for many. Generally speaking, any kind of off-track training does not enjoy the same prestige as actual practice (Tibbitts et al. 2010) and this applies even more to the full-cab simulator, which is widely seen as second best to the real thing. Although it had early been noted that simulators could be used for competence testing, for route training and to improve teamwork and communication (McInerney 2001), in Australian rail operations there is little use of simulators for other than procedural training purposes, and then not intensively. Instead we saw a continuation of the

traditional mindset that drivers learn their job best in trains from other drivers (Evans 2009). Participants repeatedly said that simulators do not ‘feel’ like a train and are therefore ineffective for training. While trainers, drivers and trainees will admit the usefulness of the simulator for degraded conditions and emergencies, which cannot easily be learned on track, there are training organisations that do not have them and handle the same aspects of training with chalk-and-talk methods or role plays.

This negative attitude to the use of simulators on the part of train drivers is exacerbated by the nature of the personnel recruited by the industry. Some companies still have a stated preference for recruiting from railway families and progression ‘up through the ranks’. They are of the opinion that people who have relatives who have been in rail have a better understanding of the job, such as the shift work, and that previous experience as a guard or in some other capacity means a new driver already has relevant route knowledge and has absorbed the corporate culture. This is a culture in which the handling of a train is widely considered to be the only thing a driver needs to learn and ‘hands-on’ experience is the only way to learn. This tends to reproduce the status quo and is not fertile ground for considering how the job and the worker might change in response to changing circumstances. Despite an increasing tendency for companies to look for driver recruits with no previous railway experience, many of the schools we observed were made up of personnel moving up from a role such as guard or station worker. Trainees in one guard-to-driver school where we held a focus group were sceptical about how useful the simulator was but thought that ‘off-the-street’ recruits would probably be more open to its use because they had not yet had any experience of the real thing:

We’re a guards-drivers course, like we’ve had experience in the railway—it would be interesting to see the reaction you get with the off the street or the direct entry type guys that haven’t had the exposure out there and are comfortable starting off in a simulator. (focus group, 29 April 2010)

By contrast, a group of ‘off-the-street’ recruits came to class with their laptops and Googled for extra information about certain topics during class, indicating a familiarity with newer technologies. This kind of demographic change in the workforce therefore seems to offer an opening to develop the use of technologies such as the simulator in the industry. However, trainers repeatedly indicated, and observations confirmed, that the experience trainees gain on trains between their first exposure to the simulator and their second affects their response to it. Once they have experience of the train, they are inclined to be more critical of the simulator, and this is mainly because the simulator is used as a pretend train rather than a reproduction of working conditions (Tibbits et al. 2010). The culture of the workplace was observed to be very rapidly absorbed by ‘off-the-street’ recruits.

However trainees with previous railway experience also thought that other kinds of simulation, such as PC-based part-task trainers, could be helpful in making training more productive for them. The following conversation with drivers who were being required to upgrade their ‘Faults and Failures’ training through classroom training alone illustrates the point, although it also clearly illustrates the cultural bias towards working with the real thing.

Participant 2: You know, even some kind of—computer programs aren't brilliant, but for the practical, with faults and failures, at least if I'm there and I'm playing on the computer that has, you know, which cupboards and stuff I have to go to, but it's not the same as going out on to a train itself. So, if they had the situation where they could take one at a time to the train, and do it for real, so you can hear the train blow, you can hear where it is, but have everyone else –

Interviewer: Doing something else

Participant 2: Well yeah, on some kind of computer program where they can set up their own faults and they can work it out themselves. That would be a better use of my time. (focus group, 29 April 2010)

Despite such acknowledgements that simulation has a role to play in training and development, this is made difficult in the rail industry by the widely held attitude that the job is driving (train handling) pure and simple. The communication and teamwork skills that improve driving performance and may contribute to the ability to move into other positions, such as training manager, go largely unrecognised, at least by drivers. On the other hand drivers informally mentioned skills such as predictive planning and network awareness as things that a good driver needs to develop through experience. These skills were not targeted in formal classroom or simulator training. It appears that a holistic approach to learning objectives underpinning a simulation would therefore be beneficial in terms of workforce development.

The values and beliefs briefly outlined here are important socio-cultural factors in how simulation is used and how effective it can be. We can expect that local values and beliefs will also influence whether simulation is used for developmental purposes and how it is used. We argue that it has to be authentic, well-targeted and locally valued or, in the words of the following driver, it has to 'really matter' if it is to fulfil its potential.

Participant 5: And the risk is also greater in the real world, like in a simulator you can crash, but it doesn't really matter, you know, like, you crash, but you're not going to hurt yourself or anybody else. (29 April 2010).

Possibilities for Adaption of Simulators to Workforce Development

We turn now to consider the three instances where simulators or simulation might be exploited for developmental purposes: recruitment, training and dedicated developmental sessions. In each instance we describe uses of the techniques we observed in the rail industry, discuss the issues raised in each case, and make some recommendations for future best practice. Related issues about identifying and using worker competencies have been addressed in Chap. 10.

Recruitment

As the AWP (2013) report noted, future workforces will need to be flexible and adaptable as well as being in possession of the skills needed for today's workplace. Currently, recruitment understandably tends to focus on finding employees who have capacities and skills in immediate demand only. As we shall see, sometimes this skill assessment is done with the aid of technology and sometimes with less technological methods. We argue that increased use of existing technologies, as well as the development of new ones, could identify not only current skills but also capacities for future development such as adaptability.

Use of Simulation

At present the use of simulator or other technology in recruitment in Australian rail is minimal, although one operator made their full-cab simulator available on open days to attract and engage prospective trainees. All of the companies and training organisations we studied used some kind of psychometric testing during the recruitment process, administered either by pen and paper test or electronically. In these cases the use of online delivery of the tests made no significant advance on the pen and paper version as far as the amount and kind of information collected was concerned. However there were two more elaborate types of recruitment process that provide food for thought about how simulation can be extended into a workforce development tool.

Some operators are using the Vienna Test System (VTS) in their screening procedures. The VTS is a computer-aided assessment tool used in many safety-critical industries (Franklin 2003). It is a PC-based psychological assessment tool that can be customised to user's needs, and includes a battery of adaptive, validated tests that provide a standardised and objective assessment of target abilities such as fine motor coordination, abstract reasoning and concentration. Within the rail context, VTS can test for reaction time, spatial testing, the vigilance tasks that are necessary for the safe operation of vehicles, and more involved tests such as the tachistoscopic traffic test (Schuhfried 2009). The latter involves photos being presented on a screen for very short periods, often only a second, before the examinee is asked questions about the image—were there motor vehicles, pedestrians, traffic signs or signals? The results of these tests can be presented in different forms depending on the evaluator's needs, including details that can be included in an initial traffic psychological assessment report. A typical battery of tests for train drivers includes:

- two-hand coordination;
- traffic awareness;
- abstract reasoning;
- literacy;
- concentration;

- personality; and
- DT foot pedals.

There is clearly potential here to identify and record many competencies that may be of interest in terms of future development.

However, use of the VTS is not widespread, and most employers rely on written tests and interviews. The use of extended behavioural interviews that included some simulation was observed in one of the major railway organisations. This company used a set of behavioural tests involving group discussions, role plays and written questionnaires, all carried out by a team of professional assessors. In discussing the applicants' responses to the scenarios presented, these assessors used their observational notes to rate each applicant against a set of positive and negative behaviours for communication, teamwork and problem solving such as 'active listening (e.g. ensures comments follow flow of discussion)' and 'builds rapport with others'. The assessors were all trained and experienced psychologists and their later discussion of the applicants' behaviour was couched in the appropriate technical language of their profession such as 'facilitated', 'collaborative' and 'managing process', backed up by the evidence of their direct observation and cross-checked with each other. Once again, the simulation of work-related tasks actually revealed a broad range of generic competencies and these would likely be of interest for the future.

Issues in Recruitment

Tichon and Diver (2012) have pointed out how the use of full-scale simulators at recruitment can help identify which recruits might be most suitable for which positions, but the more targeted and analytic information provided by the VTS raises further interesting possibilities for finding out more about the recruit than their immediate on-the-job ability. The computerised nature of the tests makes record keeping easier and it seems possible that when questions of promotion or development of new activities arise, some of the more abstract assessments contained in the VTS could be retrieved and used to identify suitable staff and appropriate skills, even if those skills are not currently being used on the job.

However, the system can also be used for training of particular skills as well as for assessment. At present this is done in some companies where a staff member has a recurring problem or has suffered a safety incident. As described to us, the system can be used to identify in fine detail the source of a problem and then develop exercises to overcome it. For instance, one driver who repeatedly made the same mistake at the same point on the line was found to be liable to distraction by particular noises that were present in the environment at that point. Programs were developed to help him manage that distraction and return to work. Interestingly, the remedial program did not replicate the work setting in any way; the scenario was set instead on a boat trip on a river. The success of this use of simulation technology depended on targeting the skill—in this case the ability to manage a particular set of noises—rather than to replicate the physical working environment in a realistic way.

This raises again the question of what exactly should be simulated—the minutiae of sometimes repetitive tasks, or the conditions necessary to prompt the use of the skill. In the behavioural interviews, recruits were also assessed on quite generic attributes such as ‘managing process’ and there appeared to be very few points at which the railway setting was necessary to demonstrate such skills. It is however known that the acquisition and application of skills is always context dependent (Perkins and Salomon 1989; De Figueiredo and Afonso 2006). That is, someone who can exhibit or has learnt a generic skill, such as collaborative practice, may not be able to exhibit that skill in another setting. While this provides a rationale for using work-related scenarios to test which behaviours are elicited in that situation, it risks missing the opportunity to identify skills that may be used in another type of situation. For this reason, a diverse set of scenarios may need to be used at all stages if simulation is to help identify adaptive skills.

Best Practice for Development Purposes

- Assess for more than immediate performance, e.g. adaptability. Some existing recruitment strategies may already garner such information but in other situations employers may have to spend some time analysing trends in their business to identify skills that may help in workforce development.
- Diversify scenario settings. The context-specific nature of learning and skills application means that scenarios that go beyond immediate work tasks should be developed.
- Keep records and make them available for future review. The great advantage that electronic technologies bring to the identification and tracking of work-relevant skills is their ability to capture and store information. See Chap. 10 for our recommendations about how such records might be managed over time.

Training

As we have already noted, simulators and simulations tend to be used to provide practice in the target skill sets in primary training, where they are used at all. While most of our investigation concerned the primary training of train drivers, we did have the opportunity to observe a range of other situations including updating skills where there had been significant changes to the network such as the construction of a new line or adoption of new trains or signals. In all the training sessions we observed, the simulator was used only after a classroom session had introduced the basic principles. There is an educational argument that it would be better to reverse this order, and we think that putting learners into a simulation and then elaborating on that experience would reveal more about their capabilities in the broadest sense.

Uses of Simulation

The training session we are using as our first example was part of a package called 'Strategic Driving'. The statement of objectives contained in the training package included: 'This course is designed to equip participant drivers with the competence to adopt a safe and proficient approach to driving a train, taking into account the risks and errors present in any particular driving context.' This looks on the face of it as though it ought to be an opportunity not only to train drivers in established procedures for identified risks, but to see how well they adapt to such situations. This would clearly benefit workforce development but in reality the training veered again towards the practice of physical and cognitive skills with a heavy emphasis on following procedure.

The first two hours of the day were taken up with reading through written materials, supported by PowerPoint slides, that discussed the types, severity and causes of the kind of event that is known as a SPAD (signal passed at danger). If a driver suffers a SPAD, even just to the extent of rolling slightly beyond the controlling signal, they must report it immediately and are removed from duty until the cause and severity can be examined. In this class, the trainers spent considerable time discussing causes of SPADs (usually human error) and how drivers can avoid them (through techniques such as maintaining alertness by drinking tea). Although there was a strategic dimension in such advice, this class created anxiety in the students who spent much of the time proposing what they saw as legitimate reasons for a SPAD. The attention of the students had unintentionally been fixed on SPAD-avoidance rather than developing a 'safe and proficient approach' to driving.

The rest of the day was spent in the simulators, with each simulated drive taking about an hour, including the debriefing by trainers. The scenario required drivers to proceed along their given route to a point at which one of the tracks was under repair. This meant that all trains in both directions had to share a single line and the trainees were meant to be practising the procedure for this, known as pilot staff working. The only connection between this procedure and the SPADs that had been the focus of the classroom session was that both concern the issue of managing authority to proceed on the track. Trainees were drilled in standard procedures for pilot staff working including filling in the necessary forms just before they commenced their simulated drive. However, since the morning session had set them up to expect SPAD conditions, as a group they did not do well on the set scenario.

Our other example of simulation in training concerns a retraining session which involved experienced drivers and guards who had to learn a new track. A day in the training centre with a classroom session in the morning and a simulator drive in the afternoon preceded a day on the actual track driving a train with no passengers. The rail industry generally uses detailed diagrams of sections of track to record track layout, signal configuration and speed limits. For a given section of track, an A4-size sheet is often crowded with detail and difficult for the uninitiated to read. On this occasion, diagrams of 9 sections of track making up the new route were taped to the classroom wall in the pattern shown in Fig. 16.3.

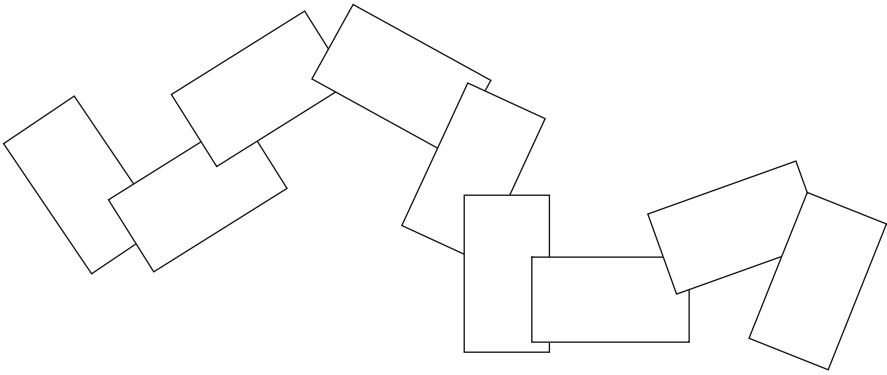


Fig. 16.3 Diagrammatic simulation of new route

Drivers walking into the classroom recognised this immediately as a representation of the curves and gradient of the new route. They had no trouble in interpreting all the route details contained in each sheet and were immediately able to discuss in some detail the difficulties that they might encounter. This diagrammatic representation could be seen as a scenario that they responded to in discussing possible strategies for managing their trains on the new track, in a kind of role play.

During the afternoon the drivers took turns in the full cab simulator. The route was represented by computer-generated imagery which included the whole length of the route and all stations. Drivers who had visited the new route commented that the simulation was ‘wrong’ in some respects. For instance, tunnels were depicted as having a flat floor, when they were in reality rounded. This was a significant issue for drivers because of the safety issue: during evacuations people have to climb down onto the track and a curved tunnel floor makes this more difficult and requires different actions from the staff. Drivers also found that the computer-generated imagery was not good at representing the lighting in tunnels and that the simulator did not provide ‘the feel of the train’. This is a persistent complaint from train drivers about simulators. Despite extensive measures to increase fidelity including the occasional use of full motion, drivers maintain that the simulator does not give the feeling of momentum, which acts as a driving cue for them. In this case, the drivers did not feel that their time in the simulator contributed to their ability to drive this new route. In comparison the route map display had prompted detailed and engaged discussion.

Issues in Training

Simulations have the potential to allow trainees to practise workplace problem solving in near-to-real surroundings that allow workers to demonstrate some of the attributes relevant to the development of ‘adaptive capacity’. The drivers’ discussion of the diagrammatic simulation of a new route is a case in point. By looking at this diagram they could compare the likely conditions with past experience, compare

strategies and plan their responses. From a developmental perspective, this was an opportunity to gather information about various individuals' abilities and approaches, although this opportunity was not used on this occasion. In contrast the drive in the full-cab simulator was not deemed to be helpful. As experienced drivers they had no problems with the controls of the simulator and, instead of concentrating on that skill as a new recruit might, they focused on the difference between this representation and the real thing. We saw many such examples where the simulator was treated as a mechanical replacement for the actual train only, rather than as a place to foster problem-solving skills or other competencies.

The initial training example also illustrates this. There is good reason why a safety-critical industry such as rail requires drivers to know and follow safety procedures. This does not preclude spending some time exploring how they might develop thinking strategies for unusual circumstances or under stress conditions. This example also raises questions of the sequencing of simulator sessions. Problem-solving skills are best evoked in unfamiliar circumstances but a class that sets out operational principles followed by a similar simulator session reinforces compliance. From the point of view of workforce development, the described way of using the simulator could be seen as having lost some important opportunities.

Best Practice Use for Development Purposes

- Draw on existing knowledge and capabilities. All training simulations should be designed keeping participant experience in mind. The diagram of the new route (Fig. 16.3) was the kind of representation that experienced train drivers were used to and it allowed them to refer to prior experience to plan future action. This allowed them to demonstrate a wider set of competences and this could help identify possibilities for future workforce development.
- Simulate whole contexts not just repetitive tasks. There may be times when drilling set procedures or practising a narrow set of skills is the key training task. However, when attention turns to matters of workforce development there is a need to know not only that workers can follow procedure but that, when changing circumstances demand it, they can develop new and appropriate responses. This requires that simulations do not just reproduce the narrow demands of the present job, but the wider environment from which change can be expected to come. This will vary from industry to industry but in our study could have been built into existing training simulation scenarios without extensive extra investment. In one case, a few A4 pages were sufficient.

Dedicated Development Sessions

The example we draw on here is an experimental PC-based simulation for the development of teamwork and communication skills which we observed being used by some senior track controllers. In this case the simulation did not reproduce the

participants' physical work environment. Instead it reproduced the factors that make teamwork and communication difficult in workplaces, namely workload, deadline and performance pressures. In this instance, workers were able to use the commercially produced Gemasim simulation to clearly articulate how they would change or develop their existing strategies in the workplace. The simulation not only developed the target skills but could be seen to contribute to workplace development by creating opportunities to modify tasks and mentor colleagues.

Use of Simulation

Gemasim is a PC-based simulation exercise requiring participants to solve problems in a virtual outer space environment. Participants undertake three separate missions from the Gemasim space station. The four participants work in two teams of two; each pair has a different computer screen, showing different graphics and information (Fig. 16.4). The screens have a science fiction motif and are not similar in appearance to the technology used daily by the participants in the course of their duties.

Work on the computers is directed and supported by a pair of manuals: an operations manual consisting of information relating to the operation of the spaceship, and a task manual consisting of tasks to be undertaken during missions. Mission descriptions were in the operation manual. Teams had to decide for themselves who would take on which roles in the simulation. Once roles and allocation of the manuals had been decided, they could not be changed during the mission, but could be changed from mission to mission. The teams competed for points and undertook extensive debriefing from observers at the end of each mission.

While the observed exercise was PC-based, there was no attempt to simulate physical or visual job performance conditions; rather the PCs were used as a device to support the roles being played. The visual interface provided by the PCs was highly effective at engaging the participants in their roles. Participants stayed in character throughout the missions, but the nature of the task, experiments and actions to be performed were generic, not particular to flight, space travel or track control. This allowed the focus of the exercise to remain on team work and communication skills and thus it was observed to be highly effective.

Issues in Development Sessions

The stated aim of the exercise was to identify and raise awareness of non-technical skills used in the workplace. Use of these skills was not complicated by concern about good track control performance. This aim was well served by the engaging role play and the debriefing after each mission. The role play allowed observers and the facilitator to draw on actual behaviour and skill use, rather than decontextualised descriptions of the required non-technical skills, as would be the case in conventional

Fig. 16.4 The Gemasim interface on two laptops and supporting manuals. (source: www.gemasim.com)



classroom sessions. Participants were guided through progressively more effective team functioning by the changing nature of the tasks set by the mission and the debriefing. In this case the debriefing involved several trained facilitators and therefore the session could be seen as prohibitively expensive for routine use. However, as noted in the previous section, workers are often capable of generating thoughtful discussion on the basis of their prior experience if allowed the chance to do so and, as there are significant costs involved in taking employees ‘offline’ for training, it makes sense to capitalise on the opportunity.

The Gemasim simulation was the least obviously similar to working conditions of all those that we observed. However, although there were persistent complaints that the full-cab simulators were ‘nothing like’ a train in other training exercises, the participants in this exercise found it to be highly relevant to their work. One commented that the simulation was not one of those ‘bullshit exercises [that make you ask] how does that relate to the job?’ As the participants were leaving after the day’s activities, they were overheard enthusiastically discussing just what they were going to change back at work, how they were going to do it and who they intended to work with to make it happen. They knew what the target skills and knowledge were and had been given skills to work on them in themselves and others.

Best Practice Use for Development Purposes

- Be clear about target skills and knowledge. Simulations need to prompt the use of target skills and knowledges or be open enough for unexpected skills and knowledges to emerge. This means they should not just reproduce the tasks. Even where procedural knowledge is the target, consideration should be given to what kind of scenario would be most useful to identify and develop the widest possible range of behaviours.

- Support simulation with opportunities for workers to elaborate their knowledge through discussion. Discussion of the events in the simulation and everyone's responses to it will help participants to better understand the target knowledge and skills, be exposed to a range of different people's responses and to connect this experience to past experience. While trained facilitators may be necessary at times, the ability of working teams to have such a productive discussion amongst themselves should be fostered through the appropriate design of simulation support. The simulation cannot be left to stand alone.

Conclusion: Can Simulators Help Develop a Workforce?

In this chapter we have discussed some examples of how simulators and simulations might be used to develop a workforce. They have an obvious role in training, but we argue that this role could, without too much effort, be expanded to accommodate the kind of identification of competencies and development of them that workforce development requires. They provide opportunities, from recruitment onward, to collect information about those competencies that workers themselves may not know they have. By moving from the reproduction of the physical work environment to the inclusion of opportunities to demonstrate adaptation to unusual and changed circumstances, they have the power to reveal where the 'adaptive capacity' lies in a business or industry and can help to develop those attributes that will help make the most of future opportunities.

Any instance of training should be recognised as an opportunity to develop more than just a couple of targeted skills, and simulators and simulation will be most effective where the broader view is taken.

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Part IV
Looking Forward: Changing Perceptions
and Possibilities

Chapter 17

Spirituality at Work: The Contribution of Mindfulness to Personal and Workforce Development

Leigh Burrows

Abstract When we work at jobs that do not engage our mind, body, feelings or spirit we are not bringing our whole selves to our work. Whether they are acknowledged or not, there are emotional and spiritual undercurrents in organisations. We work hard to create physical safety in our workplaces. Can we also create mental, emotional and spiritual safety—safety for the whole person? There is a need to welcome and include all forms of human energy—physical, mental, emotional and spiritual—to our organisations. Through vignettes of school leaders and teachers coping with relational dilemmas at work, this chapter explores what can happen when we pretend that emotions and spirit do not exist and highlights the potential of mindfulness to contribute to personal, interpersonal and structural/organisational elements of workforce development. Within the emerging areas of spirituality and mindfulness it is entirely possible to transfer new knowledge across industrial and/or professional sectors, even when the contexts and processes are different, if the emphasis is placed on stimulating reflection and learning.

Introduction

Sometimes when I am at work and it is a beautiful day I feel moved to say to a colleague: ‘Isn’t it lovely weather?’ to which he or she invariably replies: ‘Yes, it’s too good to be here! I wish I was in the garden’ (or at the beach, or fishing or anywhere but work). Recently a workshop participant told me she had two parts to her, the happy part that came to work and the unhappy part that stayed home. We all have had experiences of feeling as if we are different people in different contexts and we often hear people say in conversation that ‘a part of me wanted to do it and a part of me didn’t’. As Cunningham has highlighted: ‘The human being is more than an economic being: we are social aesthetic cultural and sexual beings and we have many selves, many intelligences and many rationalities’ (2004, p. 226).

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Mitroff and Denton (1999) found in their study of 300 human resources managers that what concerned them the most was not being able to bring their complete selves including their spiritual selves into the workplace. This is supported by more recent research by Chalofsky and Krishna who found that ‘New young professionals are expressing a preference to work for socially responsible, ethically driven organizations that allow “the whole self” to be brought to work’ (2009, p. 193). They went on to argue that:

The idea of people needing to bring their whole selves (mind, body, emotion, and spirit) to their work is critical to finding meaning in work. People often fail to bring their whole selves to work out of fear of rejection, prejudice, or misunderstanding. (2009, p. 197)

Many organisations have indeed lost sight of how to treat their employees as whole persons. Through my consultancy work in education, disability and social work environments I have encountered problems such as internal power differences, dominance by certain individuals and groups, personality clashes and power plays, sexism, racism, bullying, exclusion, judgement, competition, stressful relationships, burnout and issues to do with accountability, management structures, workloads and pay levels.

Impersonal administrative and management rules and regulations involved in managing people can lead to a tendency to overemphasise rationality, logic, pragmatism and efficiency and to miss the opportunity to create spaces for community and sanctuary in the workplace. Research has suggested that those organisations who are able to draw on the spiritual, creative and emotional energy of their employees experience an increase in employee enthusiasm, effort, collaboration, creativity and performance (see Giacalone and Jurkiewicz 2011). We work hard to create physical safety in our workplaces. ‘Can we also create mental, emotional and spiritual safety—safety for the whole person’ (Richards 1995, p. 87)?

It is in this spirit of the need for sanctuary in the workplace as a locus for self and societal renewal that I offer this chapter. I draw on findings from a professional learning research project conducted in an education environment among learners to explore whether the practice of mindfulness enhanced their experience of spirituality at work and helped them respond more effectively to a relational dilemma with a colleague.

Spirituality (at Work)

The time is ripe to examine the role that spirituality might play in the way people view and experience work. Dirkx (2000) has suggested that spirituality at work relates to workers being able to feel and experience a sense of meaning and purpose within their work. He aligns this with a humanistic and self-actualising orientation towards spirituality, which suggests that if staff members are more fulfilled they will be more productive and creative. For Ashforth and Pratt (2003) spirituality at work includes feeling able to bring the different parts of ourselves to work; feeling part of something larger than ourselves and being on a path of development. This view of spirituality at work is a considerable extension of the usual role of human resource development according to Fenwick (1998).

This inquiry into spirituality at work is occurring in a time in which, as Tacey (2004) has suggested, Australian attitudes to spirituality appear to be changing. For Tacey, in this country we put a particular ‘stamp’ on our spiritual experience that ‘Preserves the integrity of individual difference and the right to disagree even as we attempt to fit in and connect’ (2004, p. 4).

Tacey has argued that it is timely that we begin to address the issue of spirituality in Australian society since a ‘new interest in the reality of spirit and its healing effects on life, health, community and wellbeing’ is emerging (2000, p. 24). Unlike the prevailing tendency to locate problems of meaning or performance within individual workers, the spirituality at work literature suggests that commitment to work depends as much on the way work is experienced as it does on the individual work (see Dirkx 2000, p. 5). A spirituality of work therefore ideally draws our attention to the ways in which individuals experience work, its conditions, structure, organisation, and its relation to the individual worker.

Much of what goes on in organisations however is hidden and tacit, deeply patterned into the behaviour of the people who constitute the organisation, so much so that it is largely beyond their awareness and often beyond their influence. As Richards has observed in his book *Artful work*: ‘While we appear on the surface to be logical, objective and rational, the forces of the emotional undercurrent are at play: fear, anger, passion, shame, guilt, disgust, joy, frustration, caring, love and loathing’ (1995, p. 86). This suggests a need to build in time and space for mindful reflection to help people to tune in to what is going on at work both ‘under the table as well as over the table’ since ‘Managing means not only managing the visible parts . . . but also the invisible and subtle parts’ (Jenkinson 2003, p. 160).

Mindfulness

In its most common form mindfulness has come to be associated with awareness and acceptance of present-moment experience, with the aim of reducing an individual’s stress and suffering (Kabat-Zinn 2003). Mindfulness can however also be understood as ‘a spiritual awareness that is embodied and feelingful’ (Stanley 2012, p. 631). This relates to the North American medicine wheel teachings (Bopp et al. 1984) where spirituality is seen to include being passionately involved in the world, compassion, anger at injustice, the refinement of feelings, empathy and the ability to set strong emotions aside to serve others.

Researchers Glomb et al. (2011) found in their research that mindfulness is a form of meditation practice that can be easily integrated into people’s working and personal lives and can improve physical and mental wellbeing, relational skills, creativity, resilience to stress, cognitive functioning, decision making and job performance. According to Hicks and Furlotte (2010) and Stanley (2012) there is also a critical element in mindfulness which can assist us to understand ourselves, and how we react to others and social structures and organisations. These combined wellbeing, cognitive, affective and sociological definitions reflect the personal, interpersonal and

structural dimensions of mindfulness. This broader understanding of mindfulness and spirituality is supported by the work of Hicks and Furlotte (2010, p. 286), who found that mindfulness training helped build the capacity to:

- notice, pause and breathe;
- accept oneself but not the situation;
- clarify with clarity;
- think creatively;
- be open to fear;
- take action;
- smile;
- work in solidarity; and
- be persistent.

Mindfulness Research Project in Education Environments

Background to the Research

Through my professional development and consultancy work in education environments across Australia over recent years, I have become increasingly aware that staff seemed spiritually, emotionally and physically stretched and that teachers, leaders, administrative staff and teaching assistants often used my presence as an outsider as an opportunity to share their feelings of unease and frustration about a person or situation that was impacting on their wellbeing at work. I noticed that much of the professional learning offered to staff did not address issues of direct concern to them and did not appear to be situated in relationships and contexts that supported adult learning styles (see also Webster-Wright 2009). In my experience of professional learning, the more personalised it is the more valuable.

I was aware however that I needed to be careful not to get myself drawn into the very dynamic that led to being invited to work with them as an organisational consultant. Neville and Dalmau (2008) have shown that this often happens. But when the opportunity arose to conduct a professional learning research project I decided it was time to explore the role of mindfulness and reflection to create more conscious and inclusive learning communities for adults in the form of schools. According to Pritchard (2000) it is possible to share learning across sectors even when the contexts and processes are different if the emphasis is on engendering a process of learning and reflection about the place of spirituality in organisations rather than a prescriptive guide to action.

Project Outline

This study builds on previous research (Burrows 2011a, b) that explored the potential for mindfulness practice and reflective journaling to build workers' capacity for

wellbeing. For this research, 25 school leaders, teachers and administrators from six schools took part in a six-week study exploring the role of mindfulness in finding a grounded place within to more clearly see and reflect on their reactions to a relational dilemma at work with a student, colleague or parent in order to choose the most appropriate response.

For this research participants were asked to:

- identify a relational dilemma at work;
- give themselves and anyone involved in their dilemma a pseudonym;
- email the dilemma/case before beginning the mindfulness practices;
- practise the ‘soles of the feet’ meditation (Singh et al. 2007) as a formal practice at home;
- practise the same meditation as an informal practice at work whenever they knew they would shortly be seeing the person related to their dilemma;
- bring mindfulness to a conversation (this can be integrated into a work setting without difficulty);
- take regular ‘mindful’ walks at lunchtime or in the morning or evening, which involved tuning into the inner sensations of the body as they walked, gently bringing their mind back to the present moment when it wandered;
- read and digest short articles on mindfulness;
- reflect in their journals on their dilemma; and
- email weekly reflections on their experiences, insights and awareness.

I also sent the participants weekly email responses to their journal to build a bridge of understanding, trust, empathy and support as they explored their emotions, insights and reactions.

Methodology

This qualitative research drew on case study (Poulter 2006) and relational centred inquiry (Finlay and Evans 2009) methodologies. The aim of this research was to bridge the gap between theory and practice and develop insight-building case studies through being sensitive to what can be learnt from particular moments of local practice. A significant aspect of relational research is to ensure participants have a voice. This was a necessary element in this research since it is the best way to know what a participant knows or feels (Meho 2006). The online component of this study, which included email conversations as a source of data collection and the use of pseudonyms, provided an opportunity for open-ended confidential conversations to occur to allow participants to express their views freely. I chose to use email as a communication medium due to findings in my previous research (Burrows 2011a) that the freedom offered by virtual communication in terms of time and space appears to facilitate a greater disclosure of personal information (Meho 2006).

Findings

For this study qualitative data were made up of weekly journal entries emailed to the researcher. The following selected extracts from participants' first journals are included below so the reader may gain a sense of the depth and range of participants' feelings about a dilemma at work and the degree to which it was impacting on their wellbeing, in their own words.

Excerpts from Initial Journal Entries Expressing Feelings about a Dilemma at Work

This is something about this situation that greatly affects my sense of wellbeing and self-esteem in my workplace. I am feeling hurt, self-conscious and unsupported.

I feel guilty and my whole professional ethos is being challenged.

I feel judged with little or no guidance and in a role that is very open ended. I find I feel fearful when I have to meet with my line manager and tend to make mistakes when I feel like this.

For years I have struggled with my feelings while working here.

I was emotionally lost and got into thinking 'I'm no good at this.'

A few weeks ago I had a bit of a breakdown and had to have leave for almost 3 weeks. It seems I have been making myself sick with my attitude towards stress.

I experience a wave of seemingly out of control emotional reactions concerning work.

I dreamt there was an inspector in my classroom. He went to the corner of the classroom and said there is dust in the corner.

The situation makes me feel exhausted, frustrated and angry. It brings up my lack of experience and my weaknesses which creates feelings of disappointment and failure.

I have a sense of foreboding when she comes near because I expect the worst.

The situation at work has been weighing on me heavily.

I have never before felt so exposed to personal attacks.

I have realised I have become wrung out by the many incidents.

The situation with my colleague is quite depressing for me and affected my summer.

A situation has been 'brewing' for a while and every now and then exploding.

I am beginning to feel the strain on my relationship with these people who are having unhelpful conversations with others.

Dealing with the situation brings up a strange mix of envy, regret and distaste for me.

A sense of uneasiness accompanies me all day every day. I feel I am up against a strong work culture with people doing it on their own. I was met with a screaming outburst the other day.

Hearing her voice creates a physical reaction within myself. I met a woman on the weekend that had a similar tone and, for want of a better word, accent and I felt clammy . . . a feeling of insignificance, inability and lowliness came upon me like a physical blow. The situation makes me feel exhausted, frustrated and angry.

Tonight (Friday night at midnight) I am left train smashed and upset after what happened today at work.

The extracts above related to difficult encounters with people at work including complex disagreements, bullying behaviour of colleagues, feeling judged, feeling unskilled, feeling overwhelmed, working closely with someone with a dogmatic

and inflexible approach, feeling in competition with colleagues, feeling unprepared, unsupported and lacking training, lack of openness, rigidity, fear of taking risks, fear of innovation, leadership without sufficient skills or experience, lack of awareness of different learning styles and ways of working, lack of flexibility, excessive workloads, aggressive management styles, lack of inclusivity, discrimination, and lack of appropriate support for a mental health condition.

This initial data revealed the participants were experiencing significant amounts of stress in relation to their dilemmas, which in the majority of cases concerned a colleague. Participants regularly faced difficult encounters and emotional challenges at work. It would appear that the majority of participants did not experience the work environment as a safe place and it was a barrier to their holistic wellbeing. There seemed to be a dynamic interplay between the outer context of the dilemma and how they responded to it on an inner level. Problematic issues at work appeared to create negative moods, which then impact on work output and personal wellbeing.

Sometimes the participants in this study faced situations that were so emotionally demanding they felt drained or threatened. Journals from this project indicated that many participants were dealing with situations of extreme complexity which were alleviated somewhat by mindfulness and journaling practices.

Extracts from Later Journal Entries

Selected extracts from participants' journals from weeks 4 to 6 included below highlight particular experiences of spirituality at work using a slight adaptation of Ashforth and Pratt's (2003) criteria, already mentioned above and recapped here:

- feeling part of something bigger than oneself
- becoming aware of and beginning to accept and include the different parts of the self
- feeling oneself to be on a developmental path of personal growth and career self-actualisation.

Feeling Part of Something Bigger than Oneself

Many participants indicated that practising the 'soles of the feet' meditation both formally at home and at work and informally when they were able to in the midst of complex and challenging situations combined with journal reflections emailed to the researcher had helped them to expand their world.

There's a sense of open-ness to the universe. I'm a vessel for sensing impressions—no thinking involved, no processing, just receiving—open to whatever comes.

I realised today how free and happy I feel. I can put a lot of it down to the mindfulness. I do not feel like I am being restricted or hemmed in as I have for such a long time. It is wonderful!

I feel that something subtle has shifted that has given me authority in a calm and purposeful way. Whatever whichever way it has come I like the feeling and I hope it stays with me, within me.

It is still amazing to me how easy these exercises are, as I have tried over many years to find my way to an 'inner space' that is calm and centred.

I get the sense that 'the universe' is supporting me, and I'm grateful. I have realised that my perspectives in relation to a particular matter are in fact widely held.

Even though we have done lots of social/emotional work in this group and children had shared their stories with our sharing circle this felt bigger, stronger, it was as if I could reach out and touch it, that it had a presence.

I am in my element in my new role! I love my work passionately and I am stimulated emotionally and spiritually. I have found my life's destiny.

The exercises you have given me during the past few weeks have resulted in an amazing connectedness to the higher worlds and my relationship to the human world and especially how my body responds to different situations.

I have had some great moments of clarity and peace—sublime in fact. I sense that everything is all right and in harmony.

Becoming Aware of and Beginning to Accept and Include the Different Parts of the Self

For many participants, mindfulness provided the opportunity to get acquainted with and even befriend the different selves within us.

Since I have allowed myself to stop, it's as if the lid of Pandora's box has been opened and years of anxieties, fears and stresses have blown out. I really don't know how I managed to hold that particular group for 2 years. All of the stresses that I was holding in to cope have been flooding out.

I am just beginning to realise how exhausted I am by him. This week I got a headache and stress in neck and shoulders that lasted 4 days that started over him refusing to participate and speaking in his dominating loud voice all day. I am noticing how he affects my thoughts, feelings and my body and how out of control I feel when he is angry.

I noticed when she was there that I felt guilty and very stressed. I felt tight in my chest and tummy and completely wired.

I was in a meeting where tempers flared and personal statements were made. I felt anger flare within me. I usually try to fight this but this time I noticed my heart rate rising, my heart pounding in my chest, and heat running down my arms and into my throat. Simply by noticing these sensations I was able to stay present and not become entangled in emotional thoughts and feelings.

I have realised the journal work in this project has really helped me focus my thoughts and release pent-up frustration. I think it is a valuable aspect of this mindfulness training. I haven't felt I could be really honest with my colleagues or leadership as I didn't want anyone to think I wasn't coping. I have felt embarrassed and ashamed at times and I sense some judgement from colleagues.

Observing my emotional responses and where they resided in my body was centred very much on anxiety and fear. When I scanned my body it was very much around my breathing or lack of it, where the fear resided. I did the exercise 3 times through the day on Monday when I was feeling most tense/fearful of the new situation I found myself in.

Feeling Oneself to be on a Developmental Path of Personal Growth

A number of participants found that mindfulness helped to catalyse personal growth and development.

I did have a ‘aha’ moment when I realised that I didn’t leave the management meeting thinking I wish I had said X or Y but am now realising I need to leave space for others.

I truly feel I understand myself more now. The moments of realisation were many.

I have realised I need to learn courage to face my fears . . . to build relationships based on mutual concerns regardless of personal feelings . . . to accept my imperfection of thought and to be strong enough to move on and face these people who, quite frankly, scare me . . . as you said, ‘Feel the fear but do it anyway.’

Now I have a different way of observing myself. Whereas once I would observe myself at difficult times I now find that I can observe myself from within myself.

I find I am becoming clearer in myself and when I am about to launch into my old pattern I step back and try a new tack. The space I give myself to respond helps calm my response somewhat and gives me a chance to respond consciously, not out of habit but giving a space for a new thought to come in. I am grateful for the changes in myself.

I have become aware of how my thoughts create my current mood. I spent a mindful 15 min in staff meeting and became aware of my critical and judgemental thoughts towards the person at the centre of my dilemma. I tried thinking kind things about her and immediately felt better about the person and could almost bear to be in the same room as her.

I now know I need to be much more aware earlier on when I am having difficulty with A, to pause and observe where the frustration is, bring in body awareness to identify and meditate on a way of lifting the issue with a greater depth of mindfulness.

I am now standing back, watching my usual habitual thoughts instead of reacting to the content. I now have further insights on how to respond.

I am becoming more aware with my challenge and am able to think ‘outside the box’.

One thing came in loud and clear. I could ‘beat myself up’ or use it as a learning experience (I was doing the soles of my feet). I went with the latter.

I feel more within myself, calm and peaceful both at work and at home when I have used the souls [sic] of my feet to respond rather than react to a situation.

I experience again that by taking more of a back seat I am actually able to be a more positive influence than when I’m in my usual ‘in your face’ way of being.

My dilemma is something that is with me every day. It scares me, frustrates me, follows me but over the past 5 weeks of this project I am now aware that what I thought was my dilemma is actually a school-wide dilemma, which is deeply entrenched into the culture of the school. I am no longer ‘buying in’ to the situation as much as I have in the past though and I now feel that the issues with a colleague have less power over me.

We heard that one of the teachers is on stress leave and that made me feel frustrated and upset. I wanted us to gather forces to help her. I realised that the school is not supporting her so after trying to get a bit of solidarity going among the staff, I came home and wrote a letter to leadership asking what was going to be done.

I think my progress in my dilemma is through asking for help.

I have now discovered several people who can give me a slightly arm’s length perspective on my difficulties. . . I guess in the past I have felt more constrained in terms of who I can share issues with, what to share and how to do it. I’m getting better at discernment in this arena and also at trusting that, by leaving some space and allowing others to form their own judgements, a picture will emerge that enables others to engage with my questions and concerns in a clearer way.

At first when I thought of my dilemma I could feel a big hollow under my lungs full of an acidic liquid that gets churned with every breath but now it's just there as a reminder to stay focused on what step to take next and identify what can be done to cultivate mutual interest amongst staff.

I notice the difference between meetings that are 'sprung' on me and those I've prepared for with the meditation. With preparatory grounding, I'm able to express myself more clearly, respond more openly/less defensively.

To reflect on the project, I found my initial anger very strong but when I put the mindfulness exercise into practice I was able to separate my feelings and set them aside and do something practical about the problem. It took some courage to face my colleague in light of past events and I was weighing up the long-term consequences of this move. She was pleasant and understanding so was it my mindful approach, her opinion about this issue or good timing? All I know is that I have had a very successful time and see that even with no power I am able to make some valuable things happen.

Discussion

The findings from this professional learning research project support previous research (Glomb et al. 2011) that mindfulness is a form of meditation practice that can be easily integrated into people's working and personal lives, which can improve physical and mental wellbeing, relational skills, creativity, resilience to stress, cognitive functioning, decision making and job performance. It has highlighted the value of mindfulness practice as a form of professional training directly linked with issues in the workplace, involving a process of coming to know oneself and gaining a new understanding grounded in body, emotions and senses at work. Short formal practices including the 'soles of the feet' meditation and informal practices such as noticing how one is engaging with a particular task or bringing mindfulness to a conversation were integrated into the work setting without difficulty and did not need to take up much time or be obvious in any way.

The study found that simple practices such as meditating on the soles of the feet practised regularly at work and home as well as reflective journaling helped participants to gain some distance from previously overwhelming thoughts and feelings in relation to their experience of their dilemma. They began to view thoughts and feelings as useful communications from a part of themselves that was asking for attention (Engler and Fulton 2012) and in particular were able to see that their emotions could be an important source of information about themselves and how others were feeling. As they observed how they reacted to other people's emotional energy they could more easily understand why they acted the way they did. They were then more able to separate out whose emotions were 'in the driver's seat' and accept them with awareness and presence without feeling so overwhelmed. As Wolstenholme (2002) has observed, this can occur as a result of mindfulness practice in relation to a particular issue.

As participants became more familiar with their regular mindfulness practice they came to feel freer, in tune, creative and efficient and less anxious and conflicted (see also the work of counsellors Engler and Fulton 2012). Mindfulness practice was able

to assist participants to tune in to an inner core of awareness and to take information gathered by the experience of the other parts and use it to make decisions about how best to respond to the situation at hand (see also Schwartz 1995).

It is of great concern to me however that in all the educational environments in the study there appeared to be a vast emotional undercurrent, a world of unexpressed feeling, which lay beneath the surface and had a significant impact on staff wellbeing and morale. Participants were working in environments in which there appeared to be a great fear of the emotional and of openly expressing the language of feeling. As the early journal excerpts indicate, participants did not previously feel safe to bring their whole selves to work or to express their concerns openly for fear that it would be seen as a personal deficit. They seem to have mostly bottled up their work-related frustrations and emotions, as they lacked the time, space, skills, support or environment needed to help them transform them. They appeared much more comfortable expressing themselves in their journals than in group settings or meetings. The stakes may simply have been too high for them and others to speak openly about their concerns. When people encounter difficult situations and behaviours at work on a regular basis, deep feelings of vulnerability, brittleness and insecurity can make it difficult to allow for any softness of response.

It is also of concern how little support participants in the study received from leaders or colleagues who could have helped them see their situation from a more multidimensional perspective and reduced their sense of isolation. The potential broader role of mindfulness in supporting colleagues through stressful times as a preventive and proactive human resources strategy did not appear to be appreciated. While a situation may originally arise in relation to an individual staff member, it can rapidly become more complex with ripple effects right through the organisation if it is not addressed proactively.

If employees are not able to deal with the high levels of stress and relational complexity found in many workplaces such as those in this study they may require extra supports from their organisation in the form of mindfulness meditation workshops, mediation, training, professional learning, adjustments to workload and tasks and flexibility with teams and timetables to assist in managing difficult incidents and relationships at work. There may be a need to create sanctuaries and quiet areas at work that include plants, basins or ponds of water or waterfalls, indoor gardens, courtyards, natural timber and stone to create more a contemplative and peaceful atmosphere, as is currently occurring in some hospitals, clinics, schools, offices and call centres to complement the rational and pragmatic orientations of most workplaces. My previous case study research (Burrows 2009) has explored how schools and other settings have the capacity to generate wellbeing and even stillness.

It is important that personal experiences such as the ones reflected upon for this study are drawn upon to inform policy and practice changes wherever needed—in human resources, communication, policy development, training and leadership. During the course of this short project I saw that each person had within them different selves with valuable qualities such as leadership, confidence, creativity, courage, clarity, connectedness, compassion and a unique perspective to offer their workplace. These parts however, it seemed, had been forced out of their valuable

roles by a combination of life experiences including work experiences that did not welcome or include those parts, but instead rejected or excluded them. I began to see what Schwartz (1995) called a 'delicate ecology' of diverse skills and talents that needed acknowledgement and integration not only on an inner individual level but also on the level of the organisation.

Employees can be like canaries down a mineshaft, signalling to us when there is a need to take action. According to organisational change consultants Lessem and Schieffer (2010) it is important that people are able act to transform existing structures where critical reflection reveals that these structures serve as impediments. Indeed, according to social work researchers Hicks and Furlotte (2010) mindfulness training should emphasise working on personal, interpersonal and structural issues in the workplace and society, beginning with inner self-awareness and then bringing this inner understanding to work on interpersonal and institutional issues. Similarly for lawyer Powell, the 'heart of mindfulness and spirituality is engagement not happiness or detachment' (2013). He views the work we do on ourselves as ideally leading us to engage with and challenge inequitable and unfair structures in institutions.

The professional learning project reported on in this chapter demonstrated the potential of mindfulness to help people experience enhanced spirituality at work, initially through feeling safe enough to express themselves in their journals, and later beginning to feel part of something bigger than themselves and to feel that they are on a path of self-development. There is still much work to do however in terms of mindfully sharing responsibility and taking action in relation to personal, interpersonal and structural issues at work. There is an urgent need to explore the degree to which mindfulness practice can build capacity in employees for enhanced and sustained agency, responsiveness and transformative action aimed at changing inequitable policies, structures and institutions. For as Mistlberger (no date) has suggested, 'to work with mindfulness is to transform both the work we do, and ourselves, as we work'.

Before concluding I believe it is important at this point to acknowledge my active role as the researcher in the project. My background in mindfulness, counselling and consulting is likely to have contributed in part to the positive outcomes since many participants commented favourably on the reading material and responsive and supportive emails sent through to them. McCown, Reibel and Micozzi (2010) take the view that it is essential to have a mindfulness guide who authentically embodies the spirit or essence of the practices being taught. This 'background' support may have been even more pivotal in this project given the stressful conditions participants were working under and the intense nature of the dilemmas they brought to the research.

Conclusion

This professional learning project in mindfulness and reflection explored the contribution of mindfulness and reflection to the role that spirituality might play in the way people view and experience work. For Ashforth and Pratt (2003) the key elements

of this experience include: feeling able to bring the different parts of ourselves to work; feeling part of something larger than ourselves and beginning to actualise our career potential through increased self-awareness.

I suggest that this study represents a beginning. More exploration is needed into the potential of mindfulness and reflection to transform workplaces on more institutional/structural levels. I believe there is a need to work creatively and strategically to create more humane and compassionate working environments. In the future I would like to explore how this might happen through the creation of an atmosphere of sanctuary capable of supporting mindful reflection on workplace dilemmas at more than an individual level (see also Lessem et al. 2013). This kind of space or sanctuary is needed to help us ‘balance and nourish our different selves (mental, physical, emotional, and spiritual)’ according to Chalofsky and Krishna (2009, p. 197). I am optimistic about the potential of this work, especially when I receive feedback such as the following two emails in response to the project report I gave to the participants.

This research has the possibility of a big wakeup call to schools, that it’s way past time to implement processes that lead to social hygiene and more healthy professional relationships. Thanks for having the courage to go where you’ve been. (personal communication, 19 March 2013)

Thank you for the report. The project was fantastic! It brought focus to my work and home life. I have managed to resolve some of my inner conflicts around working in this place. Your example has shown the possibilities. I’ve given myself permission to bring ‘all of me’ to the table—and finally I feel like I have arrived here. It’s a job I expect to spend the rest of my life doing. But one I consider to be worth it. (personal communication 12 April 2013)

For me, mindfulness is the kind of spiritual practice in which we can engage continuously.

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Chapter 18

Evaluation in Workforce Development

Michele Simons

Abstract While workforce development embraces a range of policies and practices related to the management of people and culture in organisations, formal training and learning for work remains at the centre of developing the capability of any workforce. For organisations that operate across state and national boundaries, finding ways to harmonise and increase the effectiveness and efficiency of their training remains a priority. In this context, the practice of evaluation has much to offer. Evaluation involves collecting information in order to draw conclusions about ways to enhance the quality and outcomes achieved from training and development activities. Drawing on the experiences of working with the Australian rail industry, this chapter examines the way in which the practices of evaluation, appropriately conceived and implemented at a national level, can support workforce development. It takes as its starting point the decision by the rail industry to adopt a national approach to training in a specified area of its workforce. A bespoke evaluation model, developed out of existing evaluation theory, which can assist organisations in making decisions to address common areas of skill development is then presented, along with some challenges and considerations that need to be addressed in order to enhance the model's effectiveness and utility for organisations.

Introduction

Evaluation is a very commonplace activity. People make decisions about a variety of issues and objects—for example, whether we ‘like’ them, whether they work well or what actions we might take on the basis of these judgements. In this informal sense, these processes involve some form of evaluation—that is, making a judgement about an object or activity and then acting on that judgement. The basis for these judgements can sometimes be sound—for example, research conducted by an individual using the internet. In other cases the judgements can involve no reference to any external source and are made merely on the basis of deeply held values and beliefs that colour decisions about the ways in which things ‘should’ be or should be done.

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Evaluation can also be understood in a more formal sense where it is tied to decision making. This decision making can be directed towards an object such as a policy or, in the case of organisational training, be tied to educational decision making. Most commonly, this entails the use of processes to make some judgements about the quality of training provided to employees. These judgements are usually made at the conclusion of training processes and are often confined to establishing reactions to training and the manner in which it was offered. Information can be sought about the nature and extent of learning that has taken place (sometimes measured in assessment processes which then result in certification of some type). However, as Griffin (2012, p. 394) noted, a focus on learning outcomes and affective reactions to training (as embodied in the first two levels of Kirkpatrick's four-level approach to evaluation) can be a weak predictor of the effectiveness (or impact) of training. Effective evaluation requires a clear basis for selecting the criteria by which a training program will be examined, applying these criteria and then making decisions or judgements that will direct future decisions about the success and future of the program (Owen 2006, p. 7). The purpose of evaluation in this instance is directed towards accountability.

However, evaluation can also be directed towards improvement (Stufflebeam and Shinkfield 2007, p. 23). Evaluation for improvement seeks to provide information to developers and those concerned with the ongoing use of a course or training activity or its adaption/adoption for different contexts. It focuses on providing information that can inform practice and use. Evaluation activity that emphasises improvement can offer guidance on the ways in which the quality of courses might be maintained and improved, directions for the future planning for a course, and a basis for understanding how a course has developed over time (Stufflebeam and Shinkfield 2007, p. 23).

In this chapter I take up the issue of evaluation for improvement and, using the Australian rail industry as a case study, examine the ways in which an evaluation framework can be used to make decisions about improving the effectiveness of training and thus to make a contribution to workforce development. The framework, which arose out of collaborative action between rail organisations, is grounded in their needs and offers a systems approach to assessing current programs as a basis for further joint approaches to training and development for specified occupational groups. I commence with an overview of different models of evaluation; then describe the context of the rail industry, its approaches to skill development and how the decision to develop a shared evaluation framework emerged from an assessment of existing approaches to training and the goal of shared national approaches in designated areas. I then present the evaluation model designed to achieve this goal, and conclude with an assessment of the model and its capacity to provide a sound basis for decision making around approaches to training and development in organisations.

Models and Frameworks of Evaluation

Training is an expensive business for organisations (Steensma and Groeneveld 2010). Yet despite this significant outlay, few organisations engage in any form of evaluation to underpin the decision making associated with this investment (Griffin 2012, p. 394). This is despite the fact that models or frameworks to guide the conduct of

evaluations have proliferated (Owen 2006, p. 39). These models usually provide a step-by-step approach to evaluation practice and are often underpinned by particular assumptions about the purposes of evaluation, the most appropriate methodologies and the role of stakeholders in the evaluation process (Stufflebeam and Webster 1980). While these models can be useful, they often do not answer the overarching question ‘*why evaluate?*’ In order to bring some clarity to thinking through the issues of how to frame an evaluation, Owen has developed a meta-framework of five forms of evaluation, which seeks to sharpen evaluators’ focus on the rationale for an evaluation, the knowledge needs of the end user of the evaluation and how this knowledge might be developed (Owen 2006, p. 39). This meta-framework classifies evaluation practices into five forms (Owen 2006, p. 40), as follows:

- proactive
- clarificative
- interactive
- monitoring
- impact.

Proactive evaluation, as the name suggests, is concerned with planning. It seeks to answer questions such as ‘what do we need?’, ‘what can we do?’ and ‘how do others do this?’ (Owen 2006, p. 170). This form of evaluation can be used as a tool to aid planning and decision making in the early stages of development of a program or policy. Classically this approach is perhaps most associated with the concept of needs analysis or needs assessment, where information is used to determine the nature and extent of a ‘need’ in order to plan ways in which the identified need might be met. In many respects, processes such as these would not normally be labelled ‘evaluation’, although they are clearly connected with decision making that is used to shape and inform future directions, albeit for an object that may not be in existence as yet. As Clarke (2003) noted, training needs analyses can provide a somewhat problematic basis for planning. A rationalist approach to measuring ‘needs’ which does not take into account the impacts of social relationships and organisational dynamics on the outcomes of needs analyses can lead to inaccurate assessments of needs and the adoption of training solutions that are not fit for purpose (Clarke 2003, p 150).

Clarificative evaluation focuses on the questions ‘how will this work?’ and ‘how can we improve this so that it has every chance to deliver what we need?’ It is concerned with trying to ascertain what a program is about, how it might work in practice, its feasibility and what might be realistic outcomes (Owen 2006, pp. 191–192). This form of evaluation seeks to ‘devise models of programs . . . [to] reveal program objectives, . . . identify relationships between, and external influences on, program events’ (Hurworth 2008, p. 42). It is most often used as a precursor to undertaking evaluation to ascertain impact, while it can also be used to assess the readiness of a program for implementation. It is a diagnostic and prescriptive form of evaluation (Wholey, cited in Hurworth 2008, p. 42). Over the past 30 years this form of evaluation has evolved into practices that seek to elucidate the underpinning theory or logic of a program (usually represented in the form of a diagram) and it

can act as a tool to assist in building clarity and commitment of stakeholders to a program, its planned implementation strategies and the desired outcomes from these actions (Hurworth 2008, p. 43).

Interactive evaluation is arguably the most widely known and applied form of evaluation. This form addresses issues such as ‘what is the course trying to achieve?’, ‘how is the course being currently delivered?’, ‘what areas of the course work well?’ and ‘what areas warrant further development?’ (Owen 2006, p. 44). Interactive evaluation is concerned with improvement. It seeks to engage those most involved with the implementation of programs and to provide them with the information they need to inform their decision making about this process. Some of the approaches associated with this form of evaluation involve an evaluator ‘running alongside’ a program to provide information which is then used in subsequent development cycles. This is best exemplified in the application of action research approaches to evaluation (see for example, Kemmis 2009; Wadsworth 2011). Another way of understanding this form of evaluation is that it can be used to ‘illuminate’ an evaluand—that is, to help those who are charged with implementing a program or policy to understand what might be happening, to aid problem solving, and to engage those most closely involved with the implementation process in order that they can make informed decisions about the future directions of their program/policy. An extension of this form of evaluation is an empowerment model, where those engaged in the process of evaluation are also intimately concerned with bringing about social change (Fetterman 2002).

Monitoring forms of evaluation are concerned with program management and directed at programs at the mega and macro levels—that is, at levels such as government departments (mega) or regions, branches or divisions (macro). As the term ‘monitoring’ suggests, this form of evaluation concentrates on providing directions for implementation, maintenance towards specified goals and the development of systems to provide key personnel and stakeholders with information about delivery and achievement of outcomes (Owen 2006, p. 236). It has risen in popularity under the influence of accountability and performance-based management practices, and is concerned with the nature and extent to which a program is reaching its target/performance outcomes, the extent to which implementation is progressing, and with influencing attainment of performance targets and overall ‘fine tuning’ of a program (Owen 2006, p. 239).

The final form of evaluation— impact evaluation—has a long tradition in evaluation theory and practice which can be traced back to the work of Tyler in the middle of the twentieth century (Haji et al. 2013, p. 342). Impact evaluation focuses on establishing ‘proof’ of program worth and justifying outcomes to interested stakeholders (Owen 2006, p. 254). Impact evaluation examines questions associated with the fidelity of implementation, the attainment of the stated aims and goals of programs and empirical calculations such as return on investment and cost–benefit analyses (Owen 2006, p. 254).

Rather than categorising different forms of evaluation, Haji and colleagues (2013) offered another approach to examining the sweep of evaluation theory and practice by tracing the broad paradigm shifts in the field across a 50-year period. The first

movements in thinking came when there was a shift from an emphasis on ‘proving’ outcomes (grounded in Tylerian approaches to evaluation) to improvement-focused evaluation, to taking into account the context in which programs are implemented and using evaluation processes to engage stakeholders (Haji et al. 2013, pp. 344–345). This movement is best exemplified in the development of the CIPP (context, input, process, product) model of evaluation developed by Stufflebeam in the late 1960s (Stufflebeam and Shinkfield 2007, p. 325). These developments were closely followed by practices that focused on developing theory-based evaluation, best exemplified by the clarificative approach to evaluation described earlier in this chapter. Another shift in thinking about evaluation noted by Haji et al. (2013) is underpinned by acknowledgement of the ‘messiness’ of program implementation and the complex environments in which these events take place. Examples of this thinking are encapsulated in Scriven’s concern with unintended versus intended outcomes of programs, Patton’s work on ‘developmental’ evaluation and Pawson’s notions of ‘realist’ evaluation (Haji et al. 2013, pp. 346–348).

Thus it can be argued that evaluation theory offers a rich array of conceptual tools to assist those concerned with education and training for workforce development. By acknowledging the importance of context, adopting processes to manage the politics of stakeholder needs and understanding that evaluation can inform all stages of program development, it is possible to develop a framework that can guide evaluation efforts towards a particular outcome. In this manner, evaluation practices can provide a ‘road map’ for evaluating training and development programs across the life cycle from conception to implementation and enable decision makers and stakeholders to better understand the programs they develop, the ways in which they operate and what they might achieve in practice. This application of evaluation theory can be illustrated through a case study of the rail industry and its efforts to move towards a more coordinated approach to providing training for employees.

The Case of the Rail Industry

Workforce development within the Australian rail industry is concerned with:

- *enhancing capability alignment*, that is, ensuring that there is the best possible alignment of workers’ knowledge, skills, aptitudes, motivations with opportunities to engage in meaningful work that makes optimal use of their knowledge and skills;
- *aligning elements of ability, motivation and engagement at the organisation, team and individual levels* to contribute to overall organisational effectiveness;
- *being clear about the contribution that individual occupational groups make to organisational effectiveness*, while also acknowledging that blurring of roles is an increasing phenomenon in contemporary organisations; and
- *utilising the full range of contemporary human resource functions*, including the strategic functions of change management, leadership and cultural change as well as tactical strategies such as workforce planning (recruitment, selection

and retention), training and development, performance management, rewards and recognition, and career development (Harris and Short 2008).

Within this context, the industry is committed to ensuring the competence of all of its employees through effective and timely training. Rail organisations report making heavy investments in training for their employees across the work 'life cycle' for a range of purposes, including career advancement, maintenance of competence, and to ensure compliance with legislative and other regulatory requirements. The provision of training is a dilemma-ridden endeavour for these entities. On the one hand, organisations, particularly those operating across state and national boundaries, express concerns about the inefficiencies attached to this spending with regard to duplication of effort and the 'training silos' that can exist across organisations in these different contexts. On the other hand, organisations express a desire to benchmark, to learn more about how to collaborate, and to develop coordinated efforts that might enable them to meet their training needs in a more cost-effective and efficient manner. These latter concerns gave rise to a project that acted as a catalyst for the development of a framework that could allow organisations to better share training resources.

However, moves to collaborate around the development of training resources need to be sensitive to the range of factors that inform choices about the ways in which organisations currently manage the training functions for their workforces. Decisions are driven by a number of factors including cost, efficiency and perceived effectiveness. Competitive pressures, the need for some 'company-specific' training, and jurisdictional issues are key considerations. Approaches to training delivery need to have the capacity to be customised to take into account conditions such as labour scarcities for selected groups of workers, a thin training market (characterised by a shortage of training providers and compounded by their wide geographical distribution) and establishment costs (for example, the design of curricula). It is also clear that rail organisations hold a wealth of in-house experience in training materials and professional support from a diverse range of external training providers as well as (in some cases) their own in-house training and development capacity. While there is some evidence to suggest that good use was being made of some training products developed internally by human resource professionals and shared across some organisations, the extent to which these represented a genuinely national approach is open to conjecture. There are also issues associated with how to access what is available, and what to consider when purchasing training from external providers to ensure nationally consistent approaches to training or undertaking in-house customisation of national training products such as qualifications from training packages developed for the national vocational education and training system in Australia.

On the basis of these considerations, an evaluation framework needed to be developed that could be used as a basis for informing skill development processes for defined occupational groups and key areas of competence development and maintenance. This framework was a necessary first step in assisting organisations to make decisions about how to address common areas of skill development and to promote harmonisation and coordination in areas of common interest. Therefore, the research team developed a draft framework from an analysis of the existing literature

on approaches and models of evaluation, and it went through an iterative process of drafting, consultation and redrafting with a group of human resource professionals employed in rail organisations from across Australia. The next section of the chapter reports on the model developed from this work.

The ED²O Evaluation Framework

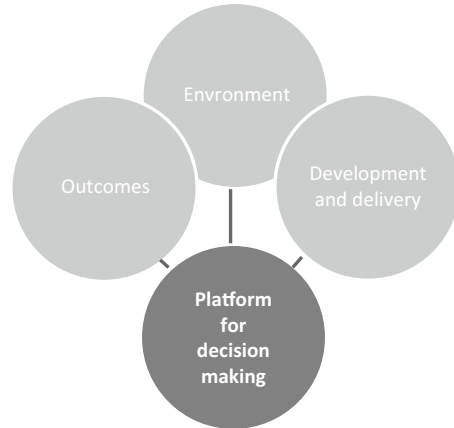
The acronym ED²O is a short form for the three components of the evaluation process that forms the basis of the framework: 1) environment, 2) design and delivery, and 3) outcomes. The conceptual basis for this framework draws on the work of evaluation theorists including Stufflebeam and Shinkfield (2007) and Owen (2006) described earlier in this chapter. The ED²O evaluation framework can be conceptualised as three sets of interrelated activities or foci which collectively support the development of a common ‘platform’ of knowledge held by individual organisations around the training and development of a specific occupational group. Data on one course can then be used as a basis for comparison with data on ‘like’ courses across organisations in order to develop a common course framework. This can then form the basis of deliberations around the nature of a national approach to training in the area of interest. The model can be represented diagrammatically as follows (Fig. 18.1).

The *environment* component of the model focuses analysis on the environment within which individual courses operate. It provides important contextual information (in the case of rail organisations, important information about jurisdictional and organisational differences) that should be taken into account in any work to develop a national curriculum in an area of interest. This information particularly points to areas where customisation of national curriculum to meet individual organisational or jurisdictional requirements needs to be managed carefully. Information is collected to help understand the operating context in which courses are currently offered, what the training needs are in each organisation, what staff groups are being targeted, factors shaping training within each organisation, and the ‘fit’ between the courses currently offered and the stated needs of the organisation. In addition, information is sought on the training capabilities in each organisation, current resource requirements, how decisions about delivery (including outsourcing) are made, and the resources that might be needed should a national approach to training in the area of focus be adopted.

The *design and delivery* component of the model focuses on building a detailed picture of the curriculum of the course in question across a number of key dimensions which need to be described fully if like courses are to be compared for their similarities and differences. This component requires the development of a common ‘language’ which can be used to describe the various components of courses. This aspect of the framework collects data on a course along a range of dimensions including:

- duration
- history of development

Fig. 18.1 The ED²O evaluation framework



- sources used in development
- main audiences to which the course is directed including prospective participant characteristics (current and prior experience, knowledge, measures of diversity including linguistic and cultural diversity)
- stated objectives/learning outcomes
- connections between objectives/learning outcomes, content and assessment of learning
- delivery methods and teaching strategies including transfer of learning strategies
- detailed content analysis
- details of staffing resources (physical) needed to conduct the program
- evaluation approaches to monitor outcomes and plans for continuous improvement.

A standardised form is utilised to collect this information and guide the assessment of the key instructional design elements for each curriculum.

The *outcomes* component of the model concentrates on the processes for assessing the course in terms of the results it achieves from the perspective of the individuals who complete it as well as the organisation. It focuses on how the effectiveness of the course might be determined in delivering its intended outcomes and how these are measured. In the context of the rail industry, a focus on outcomes also deals with issues associated with course maintenance and managing re-certification where this is applicable.

In order to operationalise the framework, a process for the systematic collection of data along the three dimensions was devised. The data management process involved activities to collect and analyse data from multiple sources. These sources included key course documents (for example, curriculum, assessment and delivery strategy documents), the completion of a course audit which includes direct observation of the course and/or analysis of learning materials, and interviews with key staff responsible for the management of the delivery and assessment processes used in the course. Once collected, the data were examined in detail by key stakeholders in

a process that provided a platform for decision making about the extent to which shared approaches to course development might be realised and whether courses should be customised to allow for local needs. Again, the documentation that arose from these deliberations provided an ‘auditable trail’ of decision making and the basis upon which these decisions might be made.

Evaluating the Evaluation Framework

Since the development of the ED²O evaluation framework, it has been used on two occasions to support processes to develop national approaches to training for initial track safety awareness and training for infrastructure workers in the rail industry. In both cases the model was utilised as outlined in this chapter and the data generated from these processes were used to advance projects to develop national training curricula in these two areas. The utilisation of the framework yielded some interesting outcomes in terms of the ways it informed subsequent training program development.

Firstly, the process has demonstrated that it is possible to bring together a diverse range of stakeholders from different organisations around a common desire to create a collaborative (and nationally focused) approach to training and development for an industry workforce. The ED²O framework rests very firmly on an emergent realism perspective. As Owen (2006, p. 88) noted, this world view asserts that there is an external reality that can be apprehended, but this reality is tentative and rests on the need for a synthesis of evidence from a range of sources. Further, this reality is co-constructed with others and is undertaken within the context of existing power relations, which necessarily entails that processes are cognisant of the voices that are heard as well as the silent voices that may not be represented around the planning table, and that negotiation is central to these processes (Caffarella and Daffron 2013, pp. 90–96). Utilising iterative and consultative processes, information from a variety of organisations offering training on the same topic can be synthesised to give a clear indication of the extent to which a national course is possible. Judgements about the ways in which various contextual factors must be taken into account in the assessment of the design and delivery of a particular training course are of primary importance in this decision-making process. The extent to which existing courses cover similar content and use similar delivery methods can also be assessed, provided that data on these dimensions are captured in a manner that allows a common understanding of the meaning of each of these dimensions to be developed. On this basis, the evaluation framework developed with the rail industry has been shown to be fit-for-purpose and able to facilitate the development of a national approach to training for these selected areas of workforce development.

Secondly, the application of the ED²O framework has also demonstrated the value of evaluation as a *process* for building consensus around the goal of national approaches to training. The model with its emphasis on improvement and building on existing practices, coupled with open and iterative processes for input from those closest to the implementation of the courses in question, demonstrates that a national approach to training is possible where desired by stakeholders.

The process however was not without its challenges. The cost in terms of time and resources to develop a shared platform to develop national approaches to training is high. One could argue that these initial ‘up-front’ costs can be more than offset by later savings through avoiding duplication of effort in scoping out and developing training programs inside individual organisations. It is also a lengthy process which does not always fit with the immediacy and urgency with which some training needs must be met. However, again, the archive of data that is developed for each course can provide a useful repository to inform decision making and to point to useful sources of information that can be accessed as needed.

Thirdly, the process of developing any proposed national curriculum needs to rely heavily on input from subject-matter experts. While significant amounts of information to develop a course can be obtained through the evaluation process, input from those most familiar with and experienced in the design and delivery of the training is vital. It is through this input from such experts that the tacit (or hidden) curriculum (Print 1993, pp. 9–14) becomes apparent and can, where possible, be codified into the curriculum document.

Conclusion

As the reader will now realise, there is much value in considering evaluation as an integral part of workforce planning, particularly in relation to developing training responses to workforce needs. It is evident, however, that the practice of evaluation that rests solely on outcomes is not sufficient for this task—current thinking in evaluation theory has much to offer these efforts. The development of an evaluation culture—‘a commitment to roles for evaluation in decision making within an organisation’ (Owen 2003, p. 43)—underpins this practice. The application of the ED²O framework to the task of informing efforts to build common approaches to training in industry exemplifies the value of systematic inquiry ‘controlled by [key stakeholders] . . . with the explicit purpose of contributing to the stock of knowledge’ for the industry in this case (Owen 2003, p. 43). Evaluation motivated by clear needs, and appropriately supported and enacted in a timely and systematic fashion, can lead to significant change.

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Chapter 19

Critical Perspectives on Workforce Development

Jim Stewart and Sally Sambrook

Abstract This chapter examines recent developments in what is referred to as ‘critical HRD’ (CHRD). The concept of human resource development (HRD) is first explained as an alternative to ‘workforce development’. This includes the argument that HRD is broader in scope and so encompasses the more limited term ‘workforce development’. Then CHRD is explored as a term that denotes a shift in theorising and research on HRD which aims to question and challenge conventional understandings of the purpose and means of facilitating learning in work organisations. This is preceded by a section explaining the relationship of CHRD with the broader critiques of organisation and management studies adopted in critical management studies (CMS), which provides some of the context of CHRD. The chapter closes with some conclusions, implications and speculations.

Human Resource Development

An obvious and perhaps expected starting point would be to offer a definition. However, as Lee (2012) has consistently argued, defining human resource development (HRD) is certainly not easy and may be undesirable. One reason for this is the proliferation of definitions in the literature (Hamlin and Stewart 2011). A related reason is the source of this proliferation and the reasons for it. Sambrook (2007) has made the case that HRD might be a term ‘talked into being’ by academics. Our research (Stewart and Sambrook 2012) indicates that the term has certainly been more valued and used in academia than in practice, in the UK at least. However, it is not possible to consider critical HRD (CHRD) sensibly without considering the meaning of the main part of that term. We do so in the context of these opening remarks.

Academia as the main source of the proliferation of definitions is clearly the reason for HRD being a contested term and the focus of much debate (Sambrook 2007). These debates centre on the purpose of HRD, which in turn is connected to varying

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philosophical and conceptual perspectives, language use, assumed boundaries and proposed locations of HRD practice (McGoldrick et al. 2002a). In their review of the philosophy, process and practice of HRD, UK writers McGoldrick et al. defined HRD as ‘supporting and facilitating the learning of individuals, groups and organisations’ (2002b, p. 396). This definition has some resonance with an earlier definition from the USA by Bates et al., who suggested the purpose of HRD is to enhance learning, human potential and high performance in work-related systems. The reference to work-related systems makes a clear connection with workforce development. However, the definition also suggests a performance orientation and a limited work context of practice. Other writers such as Rigg et al. (2007) have argued against a focus on performance. This argument is central to what is termed the performance versus learning debate in conceptualising HRD; a debate arising from competing philosophies. As Sambrook (2007) pointed out, the performance orientation has the weaknesses of presenting HRD as situated within a unitary organisation perspective which avoids any hint of the tensions inherent in work organisations, and portrays HRD as an unproblematic and unifying concept. Limiting HRD practice to the context/location of work organisations, as in Bates et al.’s definition, is also questioned by those who include communities and nations (McLean et al. 2008) and higher education institutions (Doloriert et al. 2012) as locations of HRD practice.

Despite arguments to the contrary, it is clear from the analysis conducted by Hamlin and Stewart (2011) that mainstream definitions of HRD assume a workplace context of practice. Of the 24 definitions analysed, 20 limited HRD to learning interventions in organisational settings. That analysis also confirmed performance orientation as the dominant perspective. There were though the four exceptions. Hamlin and Stewart synthesised the definitions into four broad purposes of HRD as represented in all of the definitions examined, as follows:

- improving individual or group effectiveness and performance;
- improving organisational effectiveness and performance;
- developing knowledge, skills and competencies; and
- enhancing human potential and personal growth.

As can be seen from this synthesis, some definitions of HRD include purposes that are related to individuals and unrelated to group or organisational performance or effectiveness. These include career development as well as personal growth and developing potential. In an attempt to incorporate competing perspectives and to contribute to resolving academic debate, Hamlin and Stewart offered the following ‘composite but non-definitive’ definition of HRD.

HRD encompasses planned activities, processes and/or interventions designed to have impact upon and enhance organisational and individual learning, to develop human potential, to improve or maximise effectiveness and performance at either the individual, group/team and/or organisational level, and/or to bring about effective, beneficial personal or organisational behaviour change and improvement within, across and/or beyond the boundaries (or borders) of private sector (for profit), public sector/governmental, or third/voluntary sector (not-for-profit) organisations, entities or any other type of personal-based, work-based, community-based, society-based, culture-based, political-based or nation-based host system. (2011: 213)

This is clearly a rather lengthy statement, perhaps necessarily so given the number and range of definitions it seeks to encompass. However, that is not the only grounds for criticism. While it is possible to argue that the statement does reflect the meanings of the majority of extant definitions of HRD, it still implies an unproblematic concept and fails to fully represent alternative discourses that have been brought to bear on the theory and practice of HRD, and indeed on workforce development. An obvious absence for example is an account of organisational issues viewed from a pluralistic perspective, such as the political dimension manifest in the competing, perhaps contradictory, needs of employers and employees, and the explicit and implicit power imbalances between those two parties to the employment relationship. It also excludes an explicit focus on the role of HRD in promoting corporate social responsibility and its more humanistic and emancipatory possibilities in helping individuals to achieve both their own aspirations and to transform the socio-political structures in which those aspirations are realised, or not.

To summarise this section, we can say that HRD is a concept used to represent activities aimed at facilitating learning. The purposes and sites of this learning are conventionally associated with (improved) performance of individuals and work organisations and so HRD encompasses workforce development. But alternative representations are available and are arguably as or more legitimate ways of understanding and conceptualising HRD based on different purposes and/or sites of practice. CHRD provides an alternative perspective primarily by emphasising different purposes, although the CHRD perspective does have relevance and application to sites of practice other than work organisations. The rise of CHRD parallels in some respects that of critical management studies (CMS) and that notion provides some of the context of CHRD. So we now turn our attention to CMS.

Critical Management Studies

CMS can be best characterised as an umbrella term for a number of specific approaches to and perspectives informing the study of organising and managing. These approaches and perspectives share some principles in common and so can be grouped together under a common term. The choice of verbs rather than nouns in the opening sentence of this section is both deliberate and revealing. One unifying principle of CMS is an aversion to reifying or 'objectifying' individual humans and their social arrangements which, so it is argued in CMS writing, is immanent in the concept of an 'organisation' or of a collective 'management', despite the latter constituting the middle word of CMS (see for example Fournier and Grey 2000). We do not share that aversion to the extent that we are comfortable with the concepts and so use of the words (see also Ferdinand et al. 2004).

The roots and origins of CMS are debatable. Marxist critiques of work organisations based on the labour process theory of Braverman (1974) are certainly one set of theoretical resources claimed and applied by some working in CMS (Rigg et al. 2007). And the related work of those in the Frankfurt School who produced critiques

of capitalism and associated enterprises based on their varying versions of Critical Theory are a central source and resource for many CMS writers (Ferdinand et al. 2004). Those points notwithstanding, it is generally agreed that CMS as a specific and coherent thread within organisation studies was established by the publication of the book *Critical management studies* (Alvesson and Willmott 1992), an edited collection of chapters by some of the then leading writers providing critiques of what is variously referred to as mainstream, established, traditional or conventional writing on the management of organisations. The main critiques within CMS rest on rejection of the central tenets of ‘mainstream, established, traditional or conventional’ treatments of organising and managing, which can be summarised as follows:

- Organisations are, or can be legitimately conceived as, objective entities.
- Universal structures govern the behaviour of organisations and operate in knowable, measurable and predictable ways.
- Managing organisations is a rational, technical and problem-solving activity aimed at achieving effective performance and results within those structures.
- Managing is at best value free and at worst value neutral and privileges no particular interests except those they are legitimately charged with serving, such as owners and funders.

The above list is a necessarily simplistic as well as brief summary of the basis of most management thought and writing influencing the practice of managers. It will though be clear that the underpinning rationale is derived from capitalist economics and functional sociology. CMS then can be seen as a counter to the hegemony of capitalist and functionalist accounts of organising and managing. As well as clearly Marxist and neo-Marxist critiques, CMS has added feminist, postcolonial, queer theory, environmentalist, ethical theory and post-structuralist analyses to the range of ‘critical’ accounts. Some of these additions are evident in the updated founding text published by Alvesson and Willmott in 2003. The additions also lead some researchers to distinguish between Critical Theory with initial capitals and critical theory without initial capitals. The former is meant to denote theories drawn from the Frankfurt School and other neo-Marxist accounts and to distinguish those from alternative and different analyses denoted by the lack of initial capitals. Thus ‘critical’ in CMS can have a range of meanings and theoretical resources that are brought to bear on analyses and arguments.

As well as having a focus on critiquing conventional accounts, CMS can be seen as a project with an overt agenda. This derives from a common thread in the bases of CMS critiques, which is a shared belief in asymmetrical power relations in the social arrangements of organisations and a related oppression of some participants in organising by others involved in that social process. Such oppression is seen as mostly hidden as well as undesirable and so the purpose of CMS is both to expose and to explicate the processes of oppression with the aim of achieving emancipation of the oppressed (Rigg et al. 2007; Ferdinand et al. 2004). This purpose provides a direct link between CMS and CHRD. This link is the education, training and development of managers. Such activity, as we saw in the previous section of this chapter, is within the scope of HRD. So CHRD commonly adopts a similar purpose to CMS,

namely to develop awareness of the political and ethical nature of managerial work and the value-laden bases of managerial choices and decisions through management education, training and development. There is now an established thread within CMS of applying critical pedagogy, especially in relation to management education through programs such as the MBA (French and Grey 1996; Reynolds 1999; Perriton and Reynolds 2004). Whether critical pedagogy is an exclusive topic for CHRD rather the broader CMS is a matter of debate. Critical pedagogy is though certainly a focus of much research and writing in CHRD.

This brief overview of CMS has set the broader context for our discussion of CHRD. While there are nuances of difference, CHRD accepts and applies many of the tenets of CMS. This is evidenced to an extent by the fact that CHRD has featured as a stream in most of the biennial gatherings of CMS scholars at the Critical Management Studies Conference; at the time of writing, about to enjoy its eighth iteration. Similarities and nuances of difference between CMS and CHRD will become more apparent in the next and main section of the chapter.

Critical Human Resource Development

A useful starting point is to acknowledge the argument of Sambrook (2007) that, as an emerging field, HRD theory and practice is characterised by both ontological uncertainty and methodological hegemony. First, and as made clear above, there is little agreement on what HRD *is*, or *should be*. Thus the partial and situated nature of how HRD is conceived and how HRD knowledge is constructed is widely accepted. Second, much ‘credible’ research aims to treat this complex occupational practice like any other ‘natural’ phenomenon by conducting positivist research to measure, count, explain, propose causal relations and predict future outcomes. This approach is clearly within and informed by the mainstream view of organising and managing which is challenged and questioned by CMS. The approach can though be useful in answering some questions, but not all. There are therefore calls for other ways of ‘seeing’ and researching HRD, drawing upon more interpretive philosophies and innovative methods (Valentin 2005). Books and special issues of journals such as those by Trehan et al. (2006) and Rigg et al. (2007) in part answered such calls, although some preceded them (e.g. McGoldrick et al. 2002a; Trehan et al. 2004). Being critical through CHRD is one contribution to developing new approaches. This includes taking into account and legitimising the needs, wants, aspirations and rights of the various stakeholders involved in the practice of HRD; employees as well as employers for example. Thus, the political nature of ‘doing HRD’ is exposed, whether through how HRD has been talked into being in universities, consultancies or other work organisations, or in the various ways in which HRD is talked about (and thus thought about) in organisations, courses, textbooks and journals. And, epistemologically, new methodological ways of knowing and understanding can enable critical examination of HRD. These themes—the political and epistemological nature of doing and researching HRD—are common themes within both CMS and

CHRD. However, there are other dimensions to being critical and thinking critically and we review these next.

What Do We Mean By ‘Being Critical’?

Following Sambrook (2004), it is useful to start with a straightforward dictionary definition. The *Concise Oxford dictionary* (http://www.askoxford.com/concize_oad/critical?view=uk) provides six definitions:

- ‘critical’ • **adjective** **1** expressing adverse or disapproving comments or judgements. **2** expressing or involving an analysis of the merits and faults of a literary or artistic work. **3** having a decisive importance in the success or failure of something; crucial. **4** extremely ill and at risk of death. **5** Mathematics & Physics relating to a point of transition from one state to another. **6** (of a nuclear reactor or fuel) maintaining a self-sustaining chain reaction.

The first of these, in a negative sense, suggests providing comments that criticise or find fault. The second broadens this notion to include analysis from which to provide both positive and negative comments. The third moves away from the notion of *judging* things to the idea of something crucially important, something that could influence a decision that has to be made, perhaps when facing a crisis. The fourth refers to the state of something that might be about to expire. The fifth focuses on a particular and significant phase in the development from one state to another. The sixth suggests being able to sustain something. In applying these to HRD, the first two appear to relate to the role of developers in being skilled in, and providing, criticism (such as judging merit or pointing out faults). This is a pertinent label for those involved in developing people, whether academics or HRD practitioners who facilitate learning through feedback. The third definition refers to the nature of a crisis, and some might argue that HRD is in a crisis given the debate about whether the label adequately reflects the broad and diverse range of activities associated with developing adults in the work context (Walton 2003; Hamlin and Stewart 2011). So ‘HRD’ is arguably a subject moving towards, if not already in, a state of crisis, particularly concerning the utility of the term itself (Stewart and Sambrook 2012). Arguably too, there might be a risk of moving into the fourth definition of being in a critical state, and the possible demise of HRD as we currently know it. To avoid this, the fifth definition suggests the term ‘critical’ can mark a transition from one state to another, and a debate might mark the transition from a taken-for-granted acceptance of HRD as orthodoxy towards a new, critical approach as evidenced by a ‘critical mass’ of researchers and practitioners engaging with and in CHRD. The notion of ‘critical mass’ relates to the final definition of critical and this might also refer to sustaining HRD as an academic field of study.

These initial dictionary definitions have some relevance to the relationship between HRD and CHRD, and the latter’s connection with CMS. However, the term is also used in a different way to define a particular approach to studying phenomena, including teaching and researching an academic subject such as HRD. This is explained next.

What Do We Mean By ‘Critical Thinking’?

In his editorial for the journal *Discourse & Society*, Billig noted: ‘The term “critical” is itself an interesting one. As language analysts, we should not shy away from examining (critically examining) the terms that we use to describe our own work and, indeed, our own identity’ (2000, p. 291). Given Billig’s point, it is necessary to examine the term ‘critical’ as well as HRD when exploring CHRD. In his critique of the critical, Billig argued:

Basically, when academics apply ‘critical’ to their own paradigm, discipline or theory, the label tends to signal two related messages: (a) the new paradigm/discipline/theory includes social analyses, particularly the analysis of social inequality; (b) the ‘critical’ paradigm/discipline/theory is opposing existing paradigms/disciplines/theories, which among other failings, fail to address social inequalities. As such, the critical paradigm signals its ‘other’—the mainstream, apparently uncritical paradigm. (2000, p. 291)

Thus, the argument advanced by Billig adds support to our brief summary of CMS. But is this the extent of CHRD or are there additional or alternative ways of conceptualising the term? Or is CHRD limited to addressing inequalities in, for example, access to learning and development opportunities? Do CHRD scholars and practitioners merely wish to distinguish themselves from ‘others’ who do not concern themselves with questions of equity? These are fundamental questions for anyone advocating a CHRD perspective.

Theoretically, the concept of critique can be traced back to the eighteenth century and the work of Kant and Hegel. Kant is associated with the epistemological dimension, challenging ‘reason’ and ‘rationality’ and questioning how we might know anything and what subjective forces influence claims to knowledge (Burrell 2001, p. 13). This suggests a need to think about what knowledge is and how it is constructed. Hegel is associated with the social revolutionary dimension, seeking an end to illusion and the alienation of human beings from themselves (Burrell 2001, p. 13). This suggests a need to think about who uses knowledge and how, perhaps to oppress or to emancipate people. We can then interpret ‘critical’ in several ways; from the basic level, which implies furthering ‘knowledge’, to the level of social commentary, with the potential of effecting emancipatory outcomes. This creates the need to think about the practices HRD academics and practitioners engage in, and the (potentially oppressive or emancipatory) effect they have on the social conditions of stakeholders. Critical Theory (note the initial capitals) ‘seeks to highlight, nurture and promote the potential of human consciousness to reflect critically upon such oppressive practices, and thereby facilitate the extension of domains of autonomy and responsibility’ (Alvesson and Willmott 1996, p. 13).

The interest in ‘critical’ theories, with or without initial capitals, is a shift often described as the ‘critical turn’. This use of the term is similar to the ‘linguistic turn’ referring to the transition from perceiving language as the means of *reflecting* reality to the means of *constructing* reality (Rigg et al. 2007). This turn, or transition, refers to our ‘new’ understanding of the use of language in the social construction of reality. The critical turn refers to our ‘new’ understanding of the use of critical

thinking in studying academic subjects, disciplines and fields of study. Ironically, and a play on words, critical thinking involves *reflecting*, but on one's practices and relationships, and those of colleagues, communities and societies, and their impact on each other. It is arguable that, through the work of those engaged with CHRD, HRD has moved beyond idealistic and normative prescriptions (such as the training cycle) to a more descriptive and analytical stage. As we have described above, there is an established history of thinking 'critically' in organisation and management studies (Thompson and McHugh 1995; Alvesson et al. 1999; Alvesson and Willmott 1996). Burrell (2001) reviewed this work and noted that Critical Theory is associated with challenging 'rational' organisation practices and replacing them with more democratic and emancipatory practices. It is also concerned with identifying weaknesses and limitations of orthodoxy, the need for self-reflexivity, the empowerment of a wider range of participants to effect change and explanations of social phenomena that are multidimensional, recognising the tensions in and contradictions of managing and organising. This might sound rather negative, in terms of *rejecting* managerialism, *exposing* the shortcomings of management and adopting an *oppositional* stance. Burrell might prefer to call this pessimistic. However, the key words associated with a critical perspective seem to be challenging contemporary practices, exposing assumptions, revealing illusions and questioning tradition. Being critical therefore means recognising the messiness, complexities and irrationality rather than the sanitised reason and rationality of organisational practices. Elliott and Turnbull, though, argued as late as 2005 that:

despite the influence of the critical turn in management studies on HRD in the UK, HRD has nevertheless neither been subject to the same degree of critical scrutiny as management and organization studies, nor has it gathered together a significant mass of followers that might constitute it as a 'movement' in its own right. (2005, p. 1)

We would argue that Elliott and Turnbull overstated their case. The critical perspective in HRD was already in place in 2005 (Elliott and Turnbull 2002; Stewart 2003; McGoldrick et al. 2002a; Trehan et al. 2004) though perhaps without Critical Theory with the initial capitals being the driving theoretical framework. For example, at the 2002 Academy of Human Resource Development Conference, the first 'critical' session was organised. The organisers explained the rationale behind their innovative session:

We are concerned that the methodological traditions that guide the majority of HRD research do not allow researchers to engage in studies that challenge the predominantly performative and learning-outcome focus of the HRD field . . . We seek to unpick the assumptions behind the performative orientation that dominates much HRD research . . . We therefore perceived the need to open up HRD theory to a broader range of methodological and theoretical perspectives. (Elliott and Turnbull 2002, p. 971)

From a research perspective, being critical can be interpreted as an attempt to overcome the dualistic nature of methodologies in the natural and social historical sciences (a post-paradigm agenda). We explore this methodological perspective later in the chapter.

Having briefly considered the evolution of critical thinking in HRD and its apparent emergence in CHRD, we now turn to consider 'what' we are critiquing. Mingers

(cited in Burrell 2001) identified four critiques: those of rhetoric, authority, tradition and objectivity. Applying these to HRD as components of CHR D critiques, we might consider the rhetoric and realities of HR practice (Legge 1995; Watson 1994; Sambrook 1998), and whether these are one and the same thing rather than one or the other. We might also challenge traditional HRD practices, such as the training cycle or the ‘sheep dip’ (everyone gets trained whether they need to or not) approach, which are based more on ritual than evidence. We might consider the use and abuse of power and authority when designing learning interventions, identifying training needs and ‘sending’ people on courses. Finally, we might consider how we objectively know and understand HRD through our approaches to research and whether approaches need to be more democratic, involving partners in co-constructing new knowledge.

Burrell (2001) identified six strands of a critical approach, and it might be helpful to consider their relevance and utility when applied to CHR D. Each of these strands can be thought of as particular discourses, or ways of framing what we consider to be critical. Burrell noted that these strands are interrelated and still only provide a partial understanding of Critical Theory. The six strands are: political, iconoclastic, epistemological, investigative, revelatory and emancipatory (2001, pp. 14–17). Burrell and colleagues accept the first four, but are ‘much less happy’ about the last two. However, these seem to be the two key themes of early critical theories: the struggle for emancipation and the search for ‘truth’. We use these six strands to explore the nature of CHR D further.

A political perspective draws attention to the stakeholders involved in HRD and their varying roles, interests and gains. This raises the question whether HRD is part of HRM, both theoretically and practically. In both cases, if HRD is considered a subset of HRM, then HRD specialists serve the interests of organisations first and individuals second. In the academic arena, perhaps HRD specialists are struggling for their own academic space and freedom, distinguishing themselves from HRM or vocational education. Sambrook has argued (2001), that HRD might have been talked into being to serve the needs of academic career development, by creating valuable resources with which to trade in the organisational political arena such as new job titles and new products such as postgraduate programs and textbooks. In the practitioner arena, Vince argued that we need to ask:

What function HRD has within the political systems of organizing, how and why HRD provides mechanism for the control and manipulation of organizational members and what role fear (or other such powerful emotion) plays in defining how HRD is and is not done. (2005, p. 27)

CHR D raises similar questions to Vince and so would reject a direct association with HRM, or perhaps a relationship with HRM as the dominant and so oppressive concept and practice.

From the iconoclastic perspective, critical thinking might focus on identifying what lies behind the ‘dominant imagery and icons’ of HRD. For example, symbols such as *personal* development plans or *individual* learning accounts might suggest a *humanistic* orientation, but what is their underlying purpose? Many would argue

this to be *performance*. What lies beneath the dominant imagery can be identified by attempting to unpick and break down the signifiers and symbols used in organisational life, including the ‘right phrases’ associated with a particular HRD discourse. This critique could involve discourse analysis, examining what discursive resources are being used, by whom and to construct which dominant image. So, despite the rhetoric of a humanistic orientation, HRD could be exposed for its exclusively performative objective and disregard for personal development. Critique here employs iconoclasm to debunk conventional myths (Burrell 2001, p. 15), in this case of HRD. This is just such a way in which some CHR D is accomplished (Lawless et al. 2012).

The epistemological perspective considers what constitutes knowledge, and what methodologies are accepted in constructing how we ‘know’ HRD. Critique here is about asking how HRD exists and how we can learn about it. This, in turn, causes questions about research methodologies. As researchers, we need to develop a critical lens through which to explore and develop interpretative approaches. These might include problematising the concept of HRD, using qualitative methods, examining the role of ‘the researcher’ and their relationships with ‘subjects’, and exploring values, morality and ethics in HRD and HRD research (Hatcher 2007). CHR D adopts the view that it is time to challenge the dominant approaches, actively promote those currently emerging, and to ask of research: to what extent is this work ‘critical’ and how does it contribute to a deeper understanding of HRD? A further question might challenge the extent to which more ‘critical’ knowledge actually pervades organisational practices. Trehan, for example, noted that, ‘while examples of critical pedagogies are accumulating, they seldom exhibit corresponding changes in HRD practice’ (2004, p. 23).

The investigative perspective focuses on uncovering what others take for granted and dealing with issues of human concern that are often neglected because they are suppressed and excluded from the agenda (Burrell 2001, p. 15). For example, CHR D investigates what is actually meant by HRD rather than taking this for granted. This can take the form of questioning the motives of those who (powerfully) decide what HRD should and does mean in the context of work organisations, and then exploring what this in turn might mean for those who experience the ‘doing’ of HRD. This is a different matter to the academic debates summarised earlier in the chapter and more a matter of the lived experience of participants of work organisations subjected to HRD practices (Morgan and Thomas 2013).

Searching for ‘the’ truth about HRD, given the disagreements about what ‘is’ HRD and the reluctance to have a definition (Lee 2012) is perhaps beyond what would be accepted in CHR D. Attempts to identify how HRD is talked about (some might describe this as the ideology or rhetoric) and how it is accomplished through talk are likely to be the closest to this conception of critical in CHR D since that notion would question the possibility let alone desirability of revealing a single truth about HRD. There are and are likely to remain multiple and often contradictory constructions and discourses of HRD, all of which offer partial, ambiguous and dynamic meanings and understandings of those activities and actions currently talked of as HRD.

Finally, being critical is associated with the issue of whether HRD is, or could or should be, emancipatory. There is an inherent tension between reconciling the needs

of individuals and those of employing organisations, so how could HRD emancipate? This returns to the political dimension (Vince 2005). That dimension highlights the difficulties to be faced if and when CHRD practice pursues such an agenda. But this final perspective on critical does raise the interesting as well as important question of the purpose of HRD; for example should HRD interventions serve the purpose of freeing humans from capitalist exploitation and employment degradation?

To summarise this section so far, critical thinkers adopt an *oppositional* stance (Burrell 2001, p. 14) by rejecting traditional approaches to, for example, HRD practices, and exposing their shortcomings. These shortcomings can include a neglect of the political dimension, an acceptance of what is taken for granted, an inability to investigate the views of the suppressed or excluded, a naïve adherence to conventional means of knowledge creation and associated research methodologies, and the search for the single truth. These ways of being critical can be compared with the rationale informing CHRD argued by Rigg et al. (2007). For these authors, there are four reasons for what they describe as a ‘critical turn in HRD’. Each is summarised in the following paragraphs.

Reflecting themes already discussed, the first reason advanced by Rigg et al. (2007) is the purpose of HRD. According to them, there is a growing body of concern amongst HRD practitioners and academics over the wider consequences of HRD work. Whilst HRD interventions can be and often are described in benign terms such as enabling, developing potential, empowerment and such like, these terms might hide a bigger picture of the work of HRD professionals. Might such work in fact have the consequence of refining individual skills and developing organisational capabilities to continue operating in ways that have serious human and ecological consequences? The authors cited the many examples of corporate scandals related to financial irregularity and environmental damage that focus attention on the ethics of management practice as well as on the nature of social relations which impact negatively on the lives of people. Such events also provide accumulating impetus for those who argue for management education and development to integrate consideration of social and environmental impact of business into their curricula.

These authors also argued that the traditional view of HRD has been of a technocratic ‘development of effective practitioners’ process with a rationale and justification related to competitive advantage and performance. The performative focus of such development conceives of people not only as resources to be developed and from whom more value can be extracted, but also as technocrats who, in becoming more resourceful, will become more effective at extracting value from other resources and delivering benefits for the shareholder, funders and the like. There has been very little consideration of the role HRD might play in either preventing or sustaining such corporate behaviour, as the scandals they cited exemplify. There is rarely consideration of the non-financial costs across a value chain in technicist development and, where there is, it is bundled into a separate subject termed business ethics or corporate social responsibility (see Stewart 2007). The social relations of work (Whittington 1992) and the emotional (Fineman 2000) and psychosocial dynamics of organisations have no place and there is little space for raising questions of the environmental and international consequences of business activity. Questions of

business standards, or the role and moral basis of business in society, receive no priority in the traditional view of HRD. This line of critique leads to questions such as: is it good enough simply to be concerned with the production of better technocrats? What purpose is pursued by HRD activities and what or whose values inform those decisions? In turn, these questions are related to the purpose of business more widely and so connect directly with CMS.

The second rationale for taking a critical turn in HRD, as argued by Rigg et al. (2007), is what they see as an unbalanced reliance on humanist assumptions about identity and personhood. A central discourse of HRD is the value of focusing on the needs and aspirations of individuals and an associated rationale for HRD interventions is to help to bring out the best in people so that all people can have the best in life, or at least to better cope with the world. However, as those authors pointed out, several commentators shed light on the limitations and biases resulting from humanist perspectives on 'self' and 'identity'. Kuchinke (2005) argued that the literatures on HRD, HR and management are dominated by an instrumental view of personhood and self, to the exclusion of alternative discourses. He argued this limited insight into how the 'self' is constructed has curtailed understanding, theorising and practical application of HRD. In a similar vein, Hughes (2005) observed that HRD as a concept tends to be assumed to be egalitarian and gender-neutral. She argued to the contrary that HRD is predicated on Enlightenment and Cartesian rationality and that 'humanist personhood privileges a masculine, self-directed, autonomous, choosing subject' (2005, p. 132). Such criticisms problematise a core principle of HRD, the autonomous, self-directing and self-fulfilling 'I', highlighting how, far from being universal, it is culturally and temporally specific, open only to some members of society. Dirx (2005) also highlighted how behavioural and humanistic perspectives have largely dominated the discourse of workplace learning. Grounded in modernist assumptions of rationality and the progressive accumulation of knowledge and skill, he argued that these perspectives oversimplify our complex relationships with work. A critical turn in HRD encompasses a conviction that, whilst humanist assumptions might be good for helping people to cope with the world, HRD also needs to be helping people to change the world. Thus CHRD is more openly concerned with change and in particular specific changes related to human emancipation.

The third rationale centres on what Rigg et al. (2007) called representationalist organisational perspectives and the limiting consequences these have for research and practice. Although recent theorising on HRD has broadened to encompass learning and to see HRD as integral to organising processes, HRD research remains dominated by HRD defined as training activities and by a reification of organisations in which they are conceived as 'things', particularly structures. This frames the possibilities for research narrowly, encouraging a quantitative approach, only measuring the easily measurable dimensions like expenditure, training days and qualifications. McGoldrick et al. (2001) have highlighted the consequences for HRD, arguing that impoverished research has a seriously detrimental impact on theory. For these authors, going beyond representationalist perspectives in HRD has implications for research in terms of what is researched and how. For example, if HRD is framed as learning, the research focus shifts to processes through which individuals learn and

also onto organisational processes that promote learning. If a discourse perspective is taken where ‘organisations’ are conceived as ‘networks of shared meaning which are created, perpetuated and modified through discursive practices’ Rigg et al (2007, p. 6), research can focus on the ‘social relationship processes’, the language used, the discursive resources and practices deployed (see Lawless et al. 2012 for an example). Taking a discursive view of HRD therefore implies an alternative way to research how HRD is done and talked about; and how development occurs in the course of talking and working (see the next section).

The final rationale is critical pedagogy. The authors argued that the increasing awareness of the influence of power relations in shaping pedagogical agendas has provided considerable impetus for critical HRD. They pointed out that there has been an increasing concern for the introduction of a more critical interpretation of practice in adult and higher education (see, for example, Welton 1995 or Barnett 2000). They further argued that a critical pedagogy means not only offering a challenging view of HRD interventions and management as a social, political and economic practice, but also requires methods that stimulate student participation of a kind that is rare in other forms of academic education. The authors utilised the work of Reynolds (1999) who described this as a combination of content radical (subject matter that raises questions of power, social relations, environmental consequences, etc.) and process radical (pedagogical relations that are likely to include action learning sets, learning community and/or critical reflection, which subvert traditional teacher–learner power relations). The focus on content radical and process radical means that not only is conceptual content and its application based on critical perspectives, but methods, procedures and relationships are developed in ways that are consistent with them. The rationale for a critical pedagogy, according to Rigg, Stewart and Trehan, is that HRD practitioners ought to be concerned that their interventions within organisations, whether as educationalists, as internal HRD professionals or as external HRD consultants, impact on the ways organisation members make choices and take actions that ultimately have political consequences on the environment, on exploitation of people, or on extremes of wealth and poverty. These are now also central concerns in CHRd.

This examination of rationales and perspectives on ‘critical’ within both CMS and CHRd reveal many commonalities in the meanings ascribed to it and the ways the concept is applied in producing critiques of mainstream thinking and practice. Thus, the parallel development of CMS and CHRd is now hopefully more transparent. To illustrate the meaning of ‘critical’ and how it is used within research and theorising in CHRd the next section will focus on a concrete example.

Researching and Theorising Critical Human Resource Development

We take the work of one of the present authors (Sambrook 2000, 2001) to illustrate CHRd in practice. This work considered the problematic ontological nature of HRD (what is the nature of HRD and how can we sense it?) and conceptualised HRD as

social and discursive construction and as discursive action to enable academics and practitioners to analyse how HRD is thought about, talked about and accomplished through talk. This approach constitutes knowledge as not quantifiable and statistically significant measurements, but constructed accounts of what it is like to be an HRD worker, what HRD work involves and how this is achieved. Drawing upon the themes from this brief review of CMS and CHRD literature, we explore how ‘critical’ this approach was in terms of the political, iconoclastic, epistemological and investigative issues identified by Burrell (2001, pp. 14–17).

Researching HRD from a Critical Perspective

HRD can be investigated from many perspectives (see, for example, Swanson 1999; McLean 1998, 1999), focusing on its contested roots in the disciplines of economics, psychology and systems theory, for instance. These approaches tend to describe and model HRD practices without stepping back to consider the problematic ontology of HRD, which might be thought of as one of the first stages in adopting a critical stance. The project discussed here took such an approach (Sambrook 1998).

The project faced the ontological difficulties of establishing what HRD *is*, and the consequent methodological problems of how to sense and measure this *thing* (critiquing the objective). So it seemed more feasible to focus on what HRD practitioners do and, more interestingly, how they talk about what they do—in that there could be differences between what they *say* they do and what they actually *do* (an investigative perspective). Linking these two ideas, it seems that much of what HRD practitioners *do* is *talk*; hence the notion of discursive action emerged. When talking of HRD, it is possible to examine:

- how HRD has been *talked into being*, that is, how it has been invented, or socially constructed;
- how it is *talked about*, that is, how we draw upon particular discursive resources, or ways of framing how we think about and articulate our sense making of HRD; and
- how it is *achieved through talk*, that is, through HRD practices such as delivering training, persuading, advising, consulting and formulating strategies and so on.

The notion of HRD as discursive action is an attempt to bring together the two concepts of HRD as ‘action’ and HRD as just ‘all talk’, when the two are intertwined in the accomplishment of HRD (critique of rhetoric versus reality). We can study HRD as *discourse* by analysing how it is written and talked about—by senior managers, HRM specialists, HRD practitioners, managers and other employees, for example. We can then investigate whether communal discursive resources are used amongst these diverse stakeholders or whether there are mixed accounts of HRD. This would help us understand how different agents think and speak of HRD. Thinking critically, this approach helps give voice to the potentially excluded or suppressed (employees, trainees), thereby offering more democratic involvement in the research process,

co-construction of knowledge and possible emancipation. We can also study HRD as *action* by analysing how it is practised through talking, whether through the very tangible stand-up delivery of a training session in a classroom or the more obscure behind-the-scenes discussions about how learning and development activities can add value or contribute to achieving business objectives. However, rather than focus on these two ideas in isolation, it is important to acknowledge that the one can influence the other. How senior managers think about HRD can influence how it is practised within a particular organisation (highlighting the political dimension). Conversely, how it is practised can influence how organisational members perceive HRD. This leads to the notion of HRD as *discursive action*—a complex socially constructed concept with real consequences—something that is both enacted and negotiated. This is a new way of knowing HRD (a critique of epistemology through more interpretive research methods that acknowledge the subjective).

The Original Study

The purpose of the project was to explore how HRD was talked about and accomplished through talk in the context of the British National Health Service (NHS). Ethnographic research was conducted in two trust hospitals. This involved a) semi-structured interviews with more than twenty practitioners (managers and specialists) to elicit their accounts of HRD, b) participant and non-participant observations during meetings, training interventions and other daily work activities, and c) a review of internal documents such as mission statements, strategies, policies and job descriptions.

Referring back to the notion of discursive action, what emerged from the original study was the need to explore how discourse influenced action and vice versa. For example, organisation members' accounts can be influenced by formal documents such as strategies and mission statements, which may articulate the dominant voice(s) within the organisation. By gathering and studying accounts of how HRD is talked about, in conversations and documents, and by listening to and observing the talk associated with doing HRD we can access how HRD has been talked into being and is accomplished through talk. It is useful to analyse the 'espoused' ways of thinking about HRD, articulated in formal documents, and compare these with the daily 'theories in use' or ways of thinking about and accomplishing HRD, for example through limited budgets, or being perceived as distanced from business operations (see Sambrook 2000, 2001 for a full account).

How 'critical' was this approach in terms of the political, iconoclastic, epistemological and investigative issues identified earlier (Burrell 2001, pp. 14–17)? From a political perspective, how much (or little) power is held by a researcher, and how might this have influenced participants' responses? In interviews with a wide range of stakeholders involved in HRD there were clear tensions between those who influenced HRD strategies (senior management, the HR directorates and HRD practitioners) and those who 'received' and implemented HRD policies and procedures,

usually line managers. There were tensions in terms of the 'location' of the HRD function. Usually, HRD was a part of HRM but one senior organisation development OD practitioner thought OD should be a separate functional and strategic area reporting directly to senior management. Within the complex NHS organisation, there are many different professions with their own developers. Medical education was a separate entity. Often nurse education and professional development was the responsibility of the nursing function. Where nurse development was part of the wider HRD unit, some nurse developers disliked their association with HR and felt this diminished their credibility on the ward. Formal structural arrangements were then important signals not only of power relations but relatedly of degrees of autonomy and credibility as sources of influence and power (Sambrook 1998).

From the iconoclastic perspective, this research could be considered critical in that it tried to identify what lay behind the (potential) HRD myth. This was achieved by exposing both flawed rhetorics and realities, that is by carefully analysing what was discursively articulated (the espoused vision, strategies and values) and what was discursively accomplished (how practitioners talked about HRD and enacted practice). This was an attempt to go beyond the 'rhetoric' and sanitised accounts to reveal the 'real' roles and activities of HRD.

From an investigative perspective, the research focused on exploring what HRD and non-HRD practitioners 'meant' by HRD and exposing some of the issues that could be neglected because they are suppressed and excluded from the HR agenda, such as how nurse developers felt about being located in the HRD unit. The project investigated what practitioners 'mean' by HRD by questioning those who (powerfully) decide what HRD should mean (HR directors, HRD managers) and then asking line managers and other non-HRD developers what HRD meant to them and what it was like to be exposed to the 'official' HRD. For example, there were tensions about the 'directive' role of HRD specialists when line managers were keen for greater autonomy, and tensions about the purpose(s) of HRD, whether to meet organisational/service, professional and/or individual needs.

The epistemological perspective considers what constitutes knowledge, and what methodologies are accepted in constructing how we 'know' HRD. Through an ethnographic approach, the project could be considered novel in that it emphasised the co-construction of emergent knowledge and the polyvocal dimension of the research story. Publishing the research revealed some of the difficulties associated with developing a new perspective as an alternative to the dominant positivist philosophy and accompanying quantitative methodological approaches, through the comments from (positivist) journal reviewers, for example. Linking this with the political perspective, the researcher examined her role as 'researcher' and her relationship with 'subjects' and 'declared' some of the difficulties of becoming close and then having to leave the field, as is consistent with a reflexive approach.

From a revelatory perspective, the project accepted that there was no single truth of HRD, even within this one distinct context. Multiple stakeholders articulated multiple constructions of their realities of HRD. Finally, from an emancipatory perspective, it is arguable that the project emancipated the researcher from an orthodox and positivist stance. Also, many participants might have felt emancipated to an extent

from the ‘politics’ of their roles through their engagement in the lengthy research interviews. At the end, many expressed relief at being able to talk about issues that were otherwise off the agenda. Many spoke about the therapeutic value of being able to ‘let off steam’ and of the stimulation and opportunity to think more critically about their own practices and the effects these might have on others (often for the first time). This suggests there is little time for a reflective, let alone critical, approach to HRD within the daily work routine.

A Critique

Is this neat application of Burrell’s (2001) strands of critical thinking to the project all there is to say? Being critical also requires some reflection and judgement and so some limitations need to be acknowledged. First, there is the issue of multiple discourses. In the original study the project identified (or, more honestly, *constructed*) three distinct discourses. Perhaps there were more, but they were not considered once a neat tri-typology was devised. Second, the typology could be considered limited as it was constructed out of discursive resources used in a particular context, specifically trust hospitals, within the British National Health Service. Is the typology situation-specific? Perhaps not, when we consider that the detailed literature review conducted by Garavan and colleagues (2000) also identified three distinct perspectives. However, that is not to say that there might be other discourses employed in other distinct contexts. For example, Kessels (2002) noted that HRD practices vary between large and small enterprises and between private and public sector organisations, and highlighted the sharp controversy (and possibly different language used) between employers and employees. He also noted the merger between vocational education and HRD, resulting in a fuzzy idea, a blurred structure which doesn’t fit in the formal HRD discourse (2002). However, this raises the question of what *is* the formal HRD discourse? In addition, it might be useful to consider other aspects of HRD that the project did not pay enough attention to, such as the purpose(s) of HRD: instrumental, emancipatory, performance-oriented or humanistic, for example.

Conclusions, Implications and Speculations

In this chapter we have introduced and developed critical strands from management and organisation studies to help develop our understanding of what HRD might both achieve and ‘mean’ to practitioners and other stakeholders. HRD has taken a critical turn to the extent that the term CHRD has some coherence and validity. By examining discourses associated with ‘being critical’ as well as the emerging and eclectic discourses of CMS and CHRD, we have hopefully demonstrated support for that statement. However, being critical can be understood in many ways, each relevant to the emergence and current ‘state and status’ of HRD, as described by Stewart (2005).

A significant implication of our conclusion is the question of if and when CHRDR will replace HRD and so become the new 'mainstream, established, traditional or conventional'. As Billig (2000) argued, the critical is defined in opposition to the 'Other' and so requires that other. If CHRDR replaces HRD as mainstream, then there is no 'Other' to oppose. This scenario is possible, perhaps even likely since Billig also argued it is in the career interests of young academics to align with the critical. A speculation that arises from this implication is that CHRDR will at some point cease to have any meaning.

The likelihood of that outcome is though constrained by a final implication. This is simply that 'doing' CHRDR is not an easy option, whether in an academic classroom or in a corporate training centre. Academics might have the 'luxury' of time to conduct research and think about CHRDR. But do practitioners have the time, as well as the will and power, to ask critical questions and engage in critical thinking? This raises the further question of whether it is ethical to 'teach' CHRDR in the classroom when it might be problematic for practitioners to attempt to practice this in performance-oriented organisations. Our speculation is that many will think not. But many will think the opposite: it is unethical not to 'teach' CHRDR, whether in academic or professional practitioner contexts (see Stewart 2007). In either case, academics and professionals alike need to ensure they also cast a critical eye upon their own work and so reach a position on this question.

Our final point is a further speculation. We suggest it is a critical, in the sense of crucial, time for HRD as an academic subject and field of professional practice. The rise of CHRDR will continue and that will increase tensions about purpose, values and justifications for HRD interventions. Workforce development therefore will take place in a context of uncertainty, ambiguity and dispute about its role and place in society as well as in work organisations.

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Chapter 20

The Future of Workforce Development—Old Wine in New Bottles?

Tom Short and Roger Harris

Abstract In recent years organisations have been compelled to adopt an expanding range of workplace education and training activities in order to remain competitive and survive. Developing people to gain, maintain and obtain new employment, sometimes called employability, has become accepted practice and part of the human resource practitioners' narrative. However, the language we use to describe these learning events has changed from one decade to the next—largely in response to adjustments in vocational education policy, developments in society and evolutions in the nature of work. Workforce development is the latest label in a long line of professional titles given to workplace education and training activities and in this chapter we attempt to discover whether the current vocabulary reflects a surge in innovation or is simply a case of putting old wine into new bottles. In this final chapter we identify a selection of important findings from each section and synthesise them into a concept model of ten topics arranged in three broad themes of environment, place and people. We conclude as a consequence of these emerging issues that the strategies and workforce development practices deployed by organisations in the future will become much less predictable than previous generations, more diverse and challenging for upcoming HRD professionals.

Introduction

Since the establishment of organised labour, and conceivably for many centuries, people have found ways of acquiring knowledge and gaining new skills in the course of their work—irrespective of whether these learning experiences were acquired in formal or informal settings. Yet, we know from Chap. 8 that informal learning experiences, especially in one-to-one communication processes such as mentoring, are reported to be more effective than formal arrangements because they involve voluntary participation, spontaneity, mutuality and a positive relationship agreement

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that ebbs and flows to suit the needs of individual learners. In many ways, mentoring captures the essence of 21st century learning because it situates an individual's self-awareness and personal motivation as enabling processes and accommodates the knowledge and skills people have accumulated throughout their careers as we discovered in Chap. 5. To reinforce this point, Illeris (2002) reminds us how learning is part of human nature and constructed through an ongoing blend of social, cognitive and emotional processes. What becomes most apparent from the authors in this book is the emergence of a new learning paradigm which is centred on a holistic concept called *workforce development*. This concept invites organisations to reconsider the older traditions of training and development where workplace learning was dominated by at least three patterns: (1) a defined place where learning occurred, such as a training room or educational institution; (2) someone who passed-on knowledge as the expert tutor or trainer; and (3) a learner (or employee) who needed technical or professional development to make them work-ready. These patterns have shaped the provision of education and training in the workplace for decades, but increasingly they appear unconnected in modern, less predictable workplaces that have become uncertain and structurally fragile.

In this final chapter, we reflect on the individual contributions and comment on the unfolding nature of workforce development. Framing the discussion as a kind of environmental audit of key issues, we review a range of perspectives which are currently shaping the workplace development landscape and we attempt to make sense of what the future may have in store. Developing people for employment is not a new narrative, but the terminology we use is ever-changing. Workforce development is the latest label in a long line of professional titles given to education and training activities carried out in the course of employment and we are eager to discover whether the current vocabulary reflects a surge in innovation or is simply a case of old wine in new bottles. The following ten themes feature in many of the previous chapters and we explore them here as concluding thoughts (Fig. 20.1).

Global Influences

It is difficult to separate the progression of training and workplace development policy from the influences of globalisation, particularly in western organisations where the impact of neo-liberal politics and market deregulation have shaped the discourse on vocationalism, lifelong learning, occupational competence, knowledge management and so on. In recent decades, a series of economic recessions around the world and market-driven economic policies have forced many organisations towards a culture of performativity, which Ball (2003, p. 216) described as:

A technology, a culture and a mode of regulation that employs judgement, comparisons and displays as a means of incentive, control, attrition and change based on rewards and sanctions (both material and symbolic).

In these environments, objectivism has prevailed as a managerial and business imperative which is enacted by relentless surveillance of employees' work using evaluative

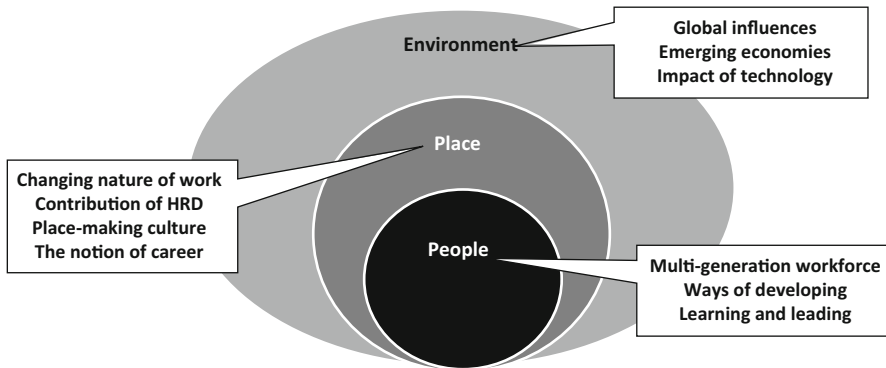


Fig. 20.1 Influences on the future of workforce development

scorecards, capability frameworks and performance management. At the same time, people have become more mobile and international in their search for employment and this movement has resulted in the need for transferable skills which gain cross-border recognition of the type described in Chap. 5. Many developed countries such as the UK, South Africa, Australia and New Zealand have adopted national competence-based qualification frameworks to structure workplace education and training in an ascending hierarchy from school leaver to post-graduate learning achievement. These countries have also pursued national targets of achievement for a given level of competence to improve workforce capability and capacity. However, Chap. 5 made the point that skills recognition, though universally appealing in concept, has ethical dimensions and is not always straightforward, frequently because of the high risks involved when accrediting competence in a new or different context. Global mobility can therefore challenge an individual's sense of national identity and self-esteem as migrating people struggle to assimilate in a new environment and gain approval for their skills. In larger countries, such as Australia, skilled migration (discussed in Chap. 3) can be either transnational across each state of the federation or international.

In order to remain competitive and survive in a globalised economy, organisations have been compelled to evaluate and re-evaluate the benefits of workforce development projects. At the same time, many organisations have projected an outward image that 'people are the most important resource' and invested in training as a top priority. Understandably, the messages have become disconcerting, especially when highly skilled people get laid-off one week and new people are hired soon after. Likewise workforce development projects have been promoted with great fervour and later cancelled in business rationalisation programs. In these fast-changing environments a workforce development strategy that works today may be totally inappropriate for tomorrow. Borrowing a meteorological comparison, globalisation and performativity have compelled organisations to become eco-HR rational by eliminating waste (repetition, inefficiency and error), removing toxic emissions (from tired or disgruntled employees) and cooling the organisation (through the reduction of human assets).

Yet globalisation has also brought substantial benefits to the area of workforce development largely through the Network Society (Castells 2000), rapid advances in technology and the contribution of multi-national organisations who share learning and promote freely the exchange of knowledge. Research undertaken in New Zealand found that multinational organisations invested heavily in their subsidiaries, shared common systems and processes, promoted international collaboration among experts and generally took a longer-term approach to workforce development (Short 2008). Arguably, multi-national organisations were among the first to truly recognise the multifarious but *holistic* nature of education, training and development.

Emerging Economies

Several authors in this book have framed their chapters around a range of global issues and perspectives in workforce development, but much of the text is underscored by their experiences of what it means to practise workplace education and training in Australia; an emerging country that has progressed from British colonisation in 1788, to Federation in 1901 and finally to being a world leader in dealing with the global financial crisis from late 2008. As many European countries continue to struggle with economic hardship, Australia has repositioned its trade connections to take advantage of the fast-emerging Asian Pacific economy; while at the same time, making a shift in mindset from West to East and debatably from traditionalism to postmodernism.

It is also helpful to reflect on what it means to be Australian in a workplace that is defined by large distances between major cities, multiple time zones, British ancestry and a pioneering mindset of state-centric nation building. Most global impressions of Australia are of ‘one nation’, represented by popular celebrities, sporting heroes and the classical image of an ‘Aussie bloke’ wearing his cowboy style hat with corks. Commentators sum-up this image as egalitarian, and individualist, having a friendly humane orientation and a strong focus on mateship, but sometimes underscored by elements of racism and discrimination (Ashkanasy and Falkus 1997). Chapter 11 reviewed these characteristics in the context of leadership, where historically Australian workers have shown a healthy scepticism for achievement and doing well—known locally as the ‘tall poppy syndrome’, especially if high achievers came from marginalised work groups (Meng et al. 2003). This is one value that clashes head-on with Western neo-liberal and market driven ideologies. Additionally, the nation-building culture of Australia has been characterised typically by higher public sector ownership, traditional structures and bureaucracy. Some reports suggest that the combined effect of these features has impacted adversely on national productivity and there is anecdotal evidence that subsidiary organisations in Australia, often owned by larger multi-national enterprises, have been slower to react to external market conditions than their overseas competitors (Karpin 1995).

However, the popularity of Australia among migrants and a minerals-based resources boom have redefined a new national identity to reflect Australia’s significance in the modern world. In recent times politicians and legislators have reaffirmed their

commitment to respect the indigenous First Australians and traditional owners of the land (described in Chap. 6), encouraging Australian organisations to re-shape their identities on locally-made products, innovations and contexts. For training practitioners who are trying to make sense of how they upskill diverse people for a 21st century workplace, this means comparing and contrasting the largely Anglo-American literature on human resource development with contemporary practices in Australia. Research conducted in New Zealand (Short 2008) found marked differences between European and Australasian cultures in their approach to workplace learning—suggesting that multi-cultural and diverse organisations should re-think their application of HRD theories that were developed in another time and place by non-indigenous academics. One simple example of this conclusion was the strong need for ‘real time’ and socially constructed learning in a Pacific Island setting compared with the remoteness of e-learning which is fast-becoming popular elsewhere. In Chap. 13, we were reminded of how learning is connected with language, literacy and numeracy skills (LLN) and how LLN varies across diverse groups such as migrant workers, between generations and work boundaries.

Impact of Technology

In the 21st century, it is impossible to consider workplace learning as something disconnected from technology and in Chap. 15, the authors considered the impact of e-technologies in an organised, industrial setting. Based on these findings, we conceive that technology will impact on workforce development in three ways. Firstly, the use of technology will be driven by the needs of individual learners and their innate talent for adapting to new technology as it develops. It is reported that in multi-generational workplaces older workers are thought to be more resistant to technology than younger generations (Glass 2007), but other studies claim that ‘Baby Boomers have embraced technology’ (Kapoor and Solomon 2011, p. 309). For example, the Silent Generation, or Traditionalists, [born before 1946] resist using technology, Baby Boomers (1946–1964) use technology when they have to, Generation X (1965–1980) because they want to and Generation Y (1981–1999) because they know of no other way. In the future, those born after 2000 (Generation Z) will enter the workplace—having grown-up with touch screen technologies, smart boards and PowerPoint as the norm in their school and college environments (Stein 2013). Secondly, developments in technology will continue to break down geographic barriers and borders, making access to learning continuous, fast evolving and world-wide. In Chap. 8 we discovered that workplace e-mentoring is beginning to emerge as a practical alternative when the mentor and mentee cannot find a more convenient way to communicate. Likewise, reference was made in Chap. 14 to the development of e-portfolios as a user-friendly way of storing and passing-on employment information and records of achievement. Thirdly, in new training environments, traditional face-to-face internal training seminars (54 %) and on-job coaching (53 %) remain the most popular methods of disseminating new knowledge and skills to groups of

people, but increasingly as learning becomes more individualised, external coaching (24 %), mentoring (18 %) and e-learning (10 %) platforms using simulations (such as those described in Chap. 16) are becoming more widespread and blend with traditional approaches (CIPD 2011).

Changing Nature of Workplace Learning

A book first published in 1972, entitled ‘School is Dead’, claimed ‘that most children in the world were not in school and those who were dropped out at higher levels’ (Reimer 1972, p. 15). The author went on to suggest that schools were expensive, with costs ever-rising and asserted that education should not be restricted to the classroom. Interestingly, almost 40 years later, a similar argument reverberates in the corridors of HRD departments where it is now widely recognised that many people do not or cannot partake in traditional classroom style training. In fact, studies suggest that only ten percent of learning is achieved during training courses, with the other 90 % of learning coming from on-job experiences (70 %) and working around good practice (20 %) (Lombardo and Eichinger 2000). This realisation has created a reappraisal of conventional training courses, sometimes irreverently referred to as *sheep dip* experiences, which have become expensive and context free. It further re-affirms the distinction of workforce development discussed in Chap. 1 as an *integrated* collection of formal education, on-job training and professional developmental activities that locate learning in a given context.

In earlier chapters we discussed the growth of individualised ways of learning such as workplace mentoring (Chap. 8), workplace coaching (Chap. 14) and e-learning (Chap. 15). We considered how advances in technology and the emergence of virtual learning places had enabled learning to transfer across organisational boundaries and geographical borders. Equally, innovative organisations that are keen to enhance their competitive advantage now realise that talented people (see Chap. 12) are more mobile and their tenure is much shorter than in previous decades, but at the same time they do not arrive with a blank canvas. Skills Recognition processes, such as those reported in Chap. 5, can be mutually beneficial arrangements between the organisation and individual employee because they help to reduce the cost of development, identify skill deficiencies for a given context, and also give credit for qualifications and experience people bring to their new workplace.

Poignantly, in an era of advanced information technology, someone could reasonably ask how much they needed to know or memorise that was not easily accessible from the Internet. As technology reduces the need for memorisation, new forms of action learning are emerging in virtual environments. In particular, Dickenson et al. (2011) comment on the growth of Virtual Action Learning (VAL), a concept that takes advantage of: (a) the shift to more work-based or contextual approaches; (b) advances in communication and (c) the effects of globalisation and emergence of dispersed organisations. Action learning promotes problem solving, reflection and experimental learning by addressing organisational issues, but VAL expands further the pool of learners and widens the learning experiences.

Contribution of HRD: Challenging Times for Practitioners

Studies suggest that many organisations enact workforce development projects through an internal HRD function, yet integrated programs of workforce development rarely survive without the backing of an enthusiastic CEO and senior executive team. However, all too often, HRD professionals struggle to reciprocate this support by finding credible techniques to evaluate the benefits arising from workforce development, such as return on investment, in the same way as other capital expenditures (Horwitz 1999; Sloman 2004). This lack of quantitative data unsettles business leaders and makes workforce development more vulnerable to ‘start and stop’ policies, especially in times of business downturn. The evaluation of workforce development is addressed in Chap. 18 and reviews a range of challenges and approaches to help define the impact of training.

Allocating cause and effect to individual HRD activities is challenging and finding tangible measures to support the long-term benefits of workforce development remains a tenuous activity. All too frequently evaluation boils down to a qualitative judgement, supported by limited statistics on attendance, absence, retention and feedback from climate surveys. Part of the problem comes from a philosophical clash between the objectivist mindset of management as discussed in Chap. 19 and the holistic nature of workforce development suggested in Chap. 1. In a similar way to previous HRD-related initiatives, such as those undertaken under the mantra of Organisation Development (OD), workforce development espouses a conceptual interdependence between learning activities—where one event influences another. These days, organisations may have several training and development activities happening simultaneously, making it even more challenging to isolate which activity adds the most value. For example, in formal workplace mentoring programs (see Chap. 8), mentees rarely assign acquired learning into neat measurable boxes and sometimes the tangible benefits to a host organisation may be delayed for a considerable period of time. This is just one area where HRD managers are confronted continually with the challenge of justifying how their mixture of training and development projects add value—putting them in a more defensive position than other internal disciplines, such as finance, engineering or marketing. Therefore, the credibility and the sustainability of workforce development projects depend on HRD practitioners getting to grips with this situation, which is not for the want of trying. It will involve organisational leaders looking beyond the bottom line at three interdependent issues.

Identity of HRD

Despite widespread use of the term Human Resource Development (HRD), those outside of the profession sometimes struggle to understand fully how HRD differs from other terminologies such as education and training, learning and development, talent development and now workforce development. These ever-changing names can be

perceived in two ways: either they point towards an evolutionary strategy within the field and an attempt to keep ahead of developments in the workplace, or they reveal a predisposition to fads or insecurities of a profession still in conflict—an idea first put forward by Ritzier and Trice (1969) who examined the polarisation of personal and training functions before HRD concepts became fashionable in the early 1980s. Chapter 19 commented on the development of HRD and how organisations choose to position HRD as a sub-set of the wider HRM function, or alternatively align the function with operations and line management (Short and Harris 2010). These issues are connected to how HRD struggles with its identity and part of the problem comes from a deep seated, or ontological insecurity created by the multifarious and political nature of organisational learning (Field 2004). HRD is often accused of borrowing ideas from other, more established disciplines such as education, economics, psychology and the social sciences (Stewart 2005). This inter-disciplinary mixture of theories impacts substantially on the credibility of HRD as a body of knowledge, especially in academic environments where, despite the contemporary rhetoric to the contrary, inter-disciplinary studies struggle to find a place. Sambrook (2003, p. 2) suggests that how an occupational group creates and then develops knowledge is part of professional identity, but HRD is ‘still emerging in both academic and practitioner spheres’. In the future, advocates of workforce development will need to articulate clearly the defining characteristics described in Chap. 1.

Critical HRD

In the future, we suggest that professionals involved in workforce development should become more aware of critical human resource development (CHRD)—a growing area of study that deliberately scratches the surface of contemporary management practices to unearth a wide range of issues relating to organisational democracy, equity and distribution of power. Chapter 19 outlined the development of CHRD as an extension of critical management studies (CMS) and how it aims to contribute to a better understanding of workforce development policy and practice by exploring the weaknesses, limitations, tensions and contradictions that exist in the pursuit of organised learning at work. According to Sambrook (2003, p. 6), ‘the key words associated with a critical perspective seem to be challenging contemporary practices, exposing assumptions, revealing illusions and questioning tradition’. Critical questions relating to HRD practice focus on whose interests are being served when an employee engages in workforce development; and just as importantly, is HRD just another tool of managerialism to enforce performance improvement and the organisation’s bottom line?

In an era where younger people (such as those in the Generation Y age group) are reportedly more committed to their career than their employers, workforce development projects will need to communicate an obvious win-win for both employer and learner. Critical HRD challenges the practice of developing people merely to fulfil an organisation’s goals as something fraught with management hegemony and

highly problematic in terms of achievability and equity. Critics' further question if workforce development is just another term used to drive performativity without regard for the psychological and social impact on individuals (Jesson 2010). What may appear to be a win-win situation is soon undermined when the workforce realises that learning or development activities intentionally deliver more benefits to shareholders than to employees.

Sourcing of HRD

Thirdly, we foresee that managers will need to re-think whether HRD expertise and services should reside inside or outside of the organisation. In the 1990s, HR outsourcing grew to become a lucrative industry with estimates reaching \$ 60 billion per year in the US alone (Bates 2002), but in recent times opposing schools of thought have emerged. The early view considered that HR activities were better outsourced on the basis of need, to reduce cost, provide access to expertise and achieve workforce flexibility (Roberts 2001). However, later studies reported unexpected problems with outsourcing such as internal resistance from the HR function and poor quality of service from the vendor—not least the length of time it takes vendors to acquire appropriate background knowledge and add value (Kosnik et al. 2006). Done badly, outsourcing of HR activities can not only take valuable expertise away from the organisation, but also increase the risk of losing reputation and damaging morale. In Chaps. 2 and 3 we were reminded about the importance of reputation to workforce attraction and retention strategies, both inside and outside of the organisation. Studies also remark on the organisational challenges for HR managers in 'navigating the complexities' of an outsourcing process (Kosnik et al. 2006, p. 673).

Reports indicate that sourcing preferences are based on an assessment of risk, the relationship with outsourcing agencies, perceived added value and ability to resource internally. As a result, an ebb and flow effect has emerged in organisations as they choose to experiment and blend the two approaches (Kosnik et al. 2006). However, a second view considers that internal experts are better placed to interpret the local context, systems and processes which enable the effective transfer of learning and retain corporate memory. Organisations must therefore segment which HRD processes are not easily outsourced and better-reside within the *internal* organisation. Coaching and mentoring processes (see Chaps. 8 and 14) are good examples and point to the growing individualisation of learning, based on need, and the transfer of tacit knowledge as a strategy for managing succession.

Place-Making Culture

The notion of place (as in workplace learning) is contained within the concept of workforce development, yet theoretical perspectives on what 'place' means are rarely considered in mainstream HRD studies. Place has its origin within the spatial traditions of geography, normally classified as Place Theory, but in recent times there has

been an increasing association between geography and philosophy, becoming better known as ‘humanistic geography’ (Bullock et al. 1977, p. 406). Humanistic geography focusses on people and cultures and considers the values, beliefs, feelings, hopes and fears that *being human* attaches to individuals and their collective belonging in certain settlements (Somerville 2008). In tribal cultures, people identify greatly with their strong sense of belonging or feeling at home in a certain place. Meeting places play a central part in not only spiritual enrichment, as described in Chap. 17, but also social cohesion and educational advancement. Given that employees derive meaning from their workplaces, and employers seek to involve them in workplace decisions, the concept of humanistic geography should, perhaps, be thought of as an underpinning characteristic of organisational life. More practically, the value of place can be seen in the employees’ motivations, personal levels of engagement and overall satisfaction from being at work. People use the word *place* frequently in statements such as, ‘I really enjoy working at this place’ or ‘this place has changed since the new HR manager arrived’ (Short 2008). Therefore, the creation of place, or place-making, may find its way into future organisational language. Research suggests there is a strong connection between place and performance—more specifically, claiming that when an individual feels ‘out of place’, their behaviour changes from the natural-self, self-esteem is lowered and their contribution is reduced. Lave and Wenger (1990) touched on this condition as a state of peripheral participation in their work on Communities of Practice. Put simply, individuals who become out of place, such as new starters, migrant workers, returning workers, those with no work experience or women working in a male-centric environment can soon feel threatened, marginalised, remote and unable to contribute in a meaningful way. Moreover, people can be displaced or be left feeling placeless when their organisational environment changes around them. Day (2007) investigated five UK organisations during periods of major change and found widespread disorientation, and identity loss and loss of control, resulting in hostility, anxiety and workplace fragmentation.

A further dimension relates to place-based education. Though lacking in theoretical tradition, place-based pedagogy draws practices and purposes from established theories on ‘experiential learning, problem-based learning and constructivism’ (Gruenewald 2003, p. 7). Place-based education values the importance of specific content and tacit knowledge, and several chapters have discussed the growing contextualisation of workforce development and significance of tacit knowledge in an era when experienced Baby-Boomers are contemplating retirement. In a similar way to mentoring and coaching, place-based education encourages both the facilitator and learner to think about how an exploration of the place can become part of how the learning content is created and then organised. As the significance of employee well-being and mindfulness (Chap. 17) becomes more prominent, a place-based approach to workforce development may increase the relevance of learning and improve the quality of work life for learners and their communities.

Christaller’s Central Place Theory, developed in 1933, connected place with politics and democracy, referring to low order and high order places, determined by the quality and value they brought to a settlement. Today, in the globally competitive

marketplace, organisations define themselves on the quality services and the innovative products they bring to their respective communities, so workplace development projects are required to satisfy a range of high order expectations. This means the quality and quantity of workforce development has little room for non-beneficial activities and as a result, investments are frequently directed towards building worker capability in high order places. Therefore, workers who operate in lower order places, such as transactional or cost-intensive operations, will find it more difficult to partake in workforce development activities. Chapter 8 reported how mentoring activities were offered to executives, graduates and disengaged apprentices, but rarely made available to production or administration employees. In recent years we have seen a trend in HRM strategy to reduce the costs of high-order training by recruiting ready-made expertise—people who are expected to make an immediate impact and hit the ground running. Yet, studies on talent management as discussed in Chap. 12 recognise that when leaders are internally developed and progress to high order places, they give better value for money, stay around longer and require less contextual development. Manderscheid and Freeman (2012) reported that when new leaders were unsuccessful in adapting to their team and organisation, the result of the transition was costly. This is because only 30 % of a leader's performance is thought to stem from individual capability, while the other 70 % is drawn from the organisation's resources such as reputation, technology and tacit knowledge existing within the team (Beechler and Woodward 2009, p. 277). We suggest that the vocabulary of humanistic geography and place-making might permeate into contemporary workplace development and be encouraged by the need to understand in more advanced ways how people behave in work-related settlements.

The Notion of a Career

Career development has become a multifarious activity, shaped by controllable and un-controlled layers of influence (Chap. 4). Controllable influences are often reflected not only in the decisions we take on what we want to do with our lives (occupationally speaking) and where we choose to live, but also our predisposition to seize opportunities that fall into our path. Uncontrollable influences are determined largely by the values and perceptions of other people, especially how they choose to treat individual circumstances such as age, gender, background and physical or intellectual capability. In Chap. 7, the authors reflected critically on the challenges faced by women who want to pursue an engineering career pathway in an environment traditionally dominated by men. In a similar way, Chap. 6 drew our attention to the plight of Indigenous people who can be denied a career unless they adapt to an environment that misaligns with their cultural values and way of doing things. Gaining recognition for skills (Chap. 5) is often part of a career portfolio, but a process frequently denied to marginal workers.

Career development can take place in or outside of an organisational context, be located in an area of expertise or developed laterally across multiple-disciplines.

Chapter 4 opened our minds to the concept of a ‘boundaryless’ career which is at odds with the systematic and prescribed career progression through an organisation’s hierarchy. We also know that career development can be halted by sudden events, such as unemployment or illness, and restarted later when an opportunity arises. For adult educators and those involved in workforce development, we recognise from previous chapters that a range of new issues are re-shaping the notion of a career and these are ever-changing. For example, practitioners will need to consider:

- what a career means among different generational groups who have, or are currently, experiencing diverging paradigms on the definition of a career;
- how careers move in multiple directions and not necessarily upwards in flatter organisations;
- that career progression may not always be defined by status, wealth, knowledge or autonomy;
- what happens when someone reaches a career endpoint and decides to begin a new career;
- how people can be helped to map-out, pursue and progress their careers in a fast-changing world where the pathway is less predictable and the end point is uncertain; and
- how the *currency* of a career is retained across boundaries and borders. Here we refer to *currency* as the recognised value of knowledge, skills, experience and other personal attributes in relation to time, place and situation.

Multi-generation Workforce

Every generation is shaped by contemporary developments in society and has a unique perspective on the world of work, a distinctive language to describe events and of greater interest to workplace educators, a defined preference for acquiring, digesting and assimilating information. In recent years, popular interest in culture and sub-cultures has focussed on trying to understand the overt demonstration of values and behavioural patterns depicted by demographic clusters within society. In the workplace, it is commonplace to hear people using classifications such as Baby Boomers, Generation X and Generation Y. Mindful that over-generalising the characteristics of one age group over another may have methodological limitations, we recognise that after years of forewarning, organisations are finally beginning to take generational diversity more seriously as they experience the onset of a three or four generational workplace. Although the classification of these generational groups varies by a few years in different publications, the messages report consistently that older Veterans (pre 1946) are still working, many Baby-Boomer employees (1946–1964) are deferring retirement from full time employment, Generations X and Y are currently in workplaces, and Generation Z (those born after 1999) will soon be ready for casual employment and vocational or higher education pathways.

With the increased potential for conflicting values in this heterogeneous setting, it will become critical for organisations to understand the key differences as they

try to impart the mission, values and knowledge upon which the smooth running of their organisation depends (Bova and Kroth 2001). The current predicaments for organisations are: how to deal with Baby-Boomers who are reluctant to retire and increasingly being encouraged by Governments to keep working; the consequential impact this delay will have on intergenerational communications; and the extent to which young talent can be attracted, recruited and retained. When older employees remain, opportunities for promotion can be much reduced and this vacuum creates increasing tensions between the generations (Dychtwald et al. 2006; Streeter 2007).

Three issues stand out in this debate: firstly, how organisations adapt to the transition from Baby Boomer to Generation X leadership (1965–1980); secondly, how organisations prepare for the arrival of Generation Y leaders (1981–1999) who are reported to be the most educated and tech savvy of all generations currently in the workplace and thirdly, how can organisations build ‘generational competence’ to meet the development needs of four generations (Jimenez 2009, p. 50). Studies have revealed fundamental differences in the work values of Baby Boomer, Generation X and Generation Y employees (Glass 2007; Kapoor and Solomon 2011) and an interpretation of these differences can be summed up in the following table:

The upshot of these differing values indicates that leaders of workforce development in the Generation X and Y age groups would be more likely to favour action learning, coaching, mentoring and e-learning over other methods, such as facilitated training. Chapters 8, 14 and 15 explained the recent upsurge of mentoring, coaching and to a lesser extent e-learning in organisations, reflecting a shift towards individualised learning that seeks to bridge any urgent education, training or career gaps. Furthermore, individualised forms of professional development have fitted well with notions of managing talent and helped to retain Generation X employees, who are reported to stay around for longer when training is available (Tulgan 1995). Generation X leaders are currently sandwiched between two diverse age cohorts and the future challenge for them may focus on how they blend their overt individualism and self-sufficiency with the broader needs of their multi-generational followers. Lesonsky (2011) suggests an approach that strives to keep older workers engaged while at the same time allowing Generation Y to take part in creative team work is essential in the modern workplace. Moreover, the experiences contained within diverse age groups can be extremely valuable in complex problem-solving situations which require not only innovation but focus on a common purpose.

Secondly, in the next decade, Generation Y workers will represent the largest generational cohort in the workplace. In comparison, Generation X is a relatively small population and as Baby Boomers retire, reports suggest that organisations are heading for a leadership shortfall, requiring Generation Y to assume senior positions before they have time to mature and master the skills (Legas and Sims 2011). Legas and Sims (2011, p. 2) suggest that, ‘occupying this niche, Generation X is likely to feel inadequate to their elders in many areas of life and as a result, resent the younger, yet larger Generation Y population’. This tension may be exasperated by emerging Generation Y leaders, who have lived with technology all their lives, have grown up in a globalised world and have seen the unpleasantness of terrorism from a

Table 20.1 Generational gaps

Work pattern	Baby Boomer	Generation X	Generation Y
Employment	Longer serving	Multiple employers	Multiple Careers
Focus	The Job	The Career	The Family
Approach to learning	Front loaded	Continuous	Lifelong
Learning strategies	Technique driven	Output driven	Holistic outcomes
Learning method	Classroom	Self-directed	Technology
Approach to work	Dedicated and loyal	Work/life balance	Values driven
Motivation	Directed	Self-starting	Team-orientated
Tenure	Stable	Transitional	Planned

very young age. As a result, Generation Y workers are very conscious of ecological issues, more accepting of diversity, but very concerned with risk and personal safety.

So what does this mean for workforce development in the immediate future? These findings suggest there is an increasing need for workforce development projects to recognise and implement programs that deal with generational diversity. Raising awareness would help the various generations to understand and value differences, share similarities and learn how to gain strength from each other. Programs that focus on succession planning and employee retention by sharing and capitalising on transferring knowledge can help to bring generations closer together.

Generation X is arguably the most adaptable and unstructured of all the generations and so Gen X leaders of workforce development projects (in HRD positions) will need to plan carefully for training delivery and consider the needs of those groups either side of their own cohort. This means putting in place learning mechanisms that recognise and use the knowledge and skills of Baby-Boomers, while at the same time nurturing Generation Y learners through positive reinforcement and constant open communication. While older cohorts value more structured and formal learning, Generation Y will look for a management style that provides lighter structure and direction, and is enacted in a more informal way. Unlike their Baby-Boomer counterparts, who are more deferential to leadership authority, Generation Y learners will be more confident about what they want to learn and why.

Ways of Developing

Throughout the chapters in this book, we have considered a wide range of adult learning and development practices in the modern workplace that somehow fuse into much broader perspectives on how and what we learn for work and what shapes our wider career aspirations. These circumstances suggest that new pedagogies of workforce development will be shaped by many influences:

- the need for learning to be set in context and place;
- the impact of competitive forces and globalisation;
- how technology can be used to improve efficiency and effectiveness;
- making learning more adaptable to multi-generational groups;

- accommodating the needs of diverse cultures;
- flexible delivery as learning becomes more episodic, individualised and self-directed;
- helping people to cope with the pressures of employment;
- encouraging innovative methods of engaging the workforce;
- drawing workforce development content from multiple disciplines and theories; and
- being mindful of spiritual connections that connect work with wider, existential meaning.

In this environment, we further suggest that new perspectives on workplace learning are emerging to build on existing approaches. Three examples under observation include the sharing of historical narratives, learning from forced experiences and recovery-based learning.

Sharing of Historical Narratives

The sharing of historical narratives, metaphors (as used in Chap. 1) or telling stories is a means of communicating meaningful experiences and has been used throughout the ages to pass-on knowledge and wisdom, often attached to an interpretation of events and summary of learning points or moral messages. For workplace educators, storytelling can be used as a means of not only communicating ethics, values and cultural norms, but also passing-on important rituals and traditions relating to a given context. In a performative world, underscored by the need for measurement, systems and frameworks, storytelling is refreshingly qualitative and aesthetic, using multiple senses and allowing people to make parallel connections between their own experiences and the story in a non-threatening way. People can draw powerful learning analogies and derive multiple layers of meaning from assimilating historical narratives into their own context. Moreover, stories and metaphors are universal in that they bridge cultural or age-related divides. Within the structure of a story, the storyteller can weave-in a narrative and metanarrative that challenges the listener to engage with the key messages at cognitive, emotional and social levels, which Illeris (2002) refers to as three dimensions of learning. A metanarrative is the story about the story, and is useful when the storyteller recalls events and wishes to sequence them into an overall schema from which listeners can reflect on what could be learned.

Though currently underdeveloped in studies on workforce development (that more typically include activities such as mentoring, coaching and facilitated learning) the practice of storytelling can be context-rich and provide a powerful mechanism for passing-on tacit knowledge and getting key messages across when the learning content cannot be expressed fully in formal education or training settings. For example, in considering how to effectively transfer valuable leadership lessons across generations, storytelling offers one method of utilising retiring Baby Boomer leaders as subject-matter experts to pass-on their knowledge, skills and wisdom to eager Generation Y protégés who may be thrust into senior roles ahead of their time, largely to

offset the physical lack, or short tenure, of Generation X managers. However, before storytelling can take place, organisational leaders must not only adapt their workplaces to meet the needs of a multi-generational workforce who will have varying expectations of their employer (MacLeod 2008), but also overcome one potential barrier that only 11 % of younger people enjoy working with less tech savvy older generations (Sardo and Begley 2008).

Learning from Forced Experiences

Anecdotally, it is said the best advances in technology come from periods of conflict or instability when people and resources are put to the ultimate test. In these stressful situations, new learning is triggered by unplanned, episodic events and enforced by a range of uncontrolled circumstances. However unpleasant these experiences, they result in accelerated or action-based learning and more specifically, learning how to overcome the onset of a sudden crisis. Yet even when these events are less dramatic than military exchanges, we see ordinary people doing extraordinary things in natural disasters or times of personal crisis as they deal with unexpected situations. Then afterwards, once the event has subsided, these leaders step out of the spotlight and resume a less high profile role. Chap. 11 commented on the work of Warren Bennis who claimed that leadership was often forgotten in stable times. Situational leadership is one example of learning and development through a forced experience, and Chap. 11 considered a range of leadership theories which deal with contingency and a leader's predisposition to adopt a particular style in a given context. Can people, however, be developed to deal with forced experiences?

In defence situations, or civilian settings where naturally occurring experiences are impossible, undesired or difficult to orchestrate, organisations are increasingly making use of simulators and simulated activities to rehearse unforeseen events so that people can be better prepared in the event of a real emergency. This is most clearly evident in the training of airline pilots, and more recently train drivers, who use advanced technologies as described in Chap. 16 to simulate a range of episodic events in a world of virtual reality. In a fast-changing business environment where problem solving is becoming more complex and dynamic, Chap. 9 reminded us that new knowledge is needed to tackle complex issues in adaptive environments in order to build new competencies. Simulation can offer a cost-effective means to increase situational awareness and rehearse complex or risky processes. With the increasing frequency of unpredictable and episodic events, we foresee a growing need for simulated learning to become part of an innovative workforce development strategy.

Recovery-based Leading and Learning

Recovery-based leading and learning (RBLL) is a challenging perspective we have introduced in this chapter to describe workforce development situations where a leader is assigned or inherits the work of others and is faced with the task of realigning

activities, projects, strategies or policies to meet a range of given objectives. These may include:

- fixing something that is perceived to be in disarray or not working effectively;
- modernising something that is considered out of date;
- re-expressing something in the language or style of new owners;
- reframing something to align with a different level of expectation; and
- restoring reputation, or quality or minimising risk.

The following comments are largely qualitative, but firstly we reflect on how RBLL has become a customary feature in organisational life, increasingly driven as it is by a global culture of higher performance, endless change, rapid turnover and perhaps a narcissistic need for newcomers to be seen to be making a difference. Recent studies have reported an alarming growth in narcissistic behaviour in society and especially among younger generations who have under-developed social skills, an unrelenting need to get their own way and seek constant affirmation of their worth from peers (Stein 2013).

Take for example a new CEO who assumes responsibility for an enterprise. We seldom hear of situations where an incoming CEO pledges to maintain the status quo. These CEOs become recovery-based leaders from the outset and operate within a politically charged environment—fuelled by neo-liberal values, performativity, personal empowerment and the need to expose then fix hidden weaknesses or issues. To cope with RBLL, we discovered earlier in this book how CEOs and HRD professionals frequently used concept models and frameworks as a kind of *practical theology* to make sense of their world and initiate change. We have appropriated the term *practical theology* (Osmer 2008) because it has connections with mindfulness and spirituality as described in Chap. 17 and humanistic geography as mentioned earlier in this chapter. Practical theology involves reflecting deeply on issues (descriptive-empirical) to understand why they have happened (interpretative), thinking about what ought to be happening (normative) and deciding how to respond based on experience (pragmatic).

At an organisational level, workforce development strategies get caught-up frequently in RBLL as a form of practical theology to ‘close the gap’ between a perceived or evaluated current position and a desired end point. Gaps are identified from detailed survey information taken from an analysis of the current position and sometimes benchmarked against other standards as a comparative measure. In these situations, RBLL requires those involved to take heed of fresh insights obtained elsewhere and decide if the chosen approaches are the best way forward. Sometimes, the new learning within RBLL requires people to ‘unlearn’ (Becker 2010, p. 252) and take-on new knowledge or skills. These are personal choices within the change management paradigm and require those involved to take a self-evaluative journey to consider if:

- both parties can agree (win-win) Accord
- I am correct and they are wrong (win-lose) Arrogance
- we both disagree (lose-lose) Apathy
- I am wrong and they are correct (lose-win) Acceptance

Strategies and plans to deal with RBLL are influenced by how leaders cope with these individual standpoints and afterwards managers use words like ‘alignment’ and ‘fit’ to differentiate the advocates from opponents, protagonists or mere spectators. Employees soon learn that arrogance and apathy are not desirable in a RBLL culture and the resulting turnover can lead to a substantial loss of tacit knowledge not appreciated fully at the time, and not easily replaced by a sudden influx of willing new starters. Chapter 2 highlighted the significance of branding and how internal perceptions can make an organisation attractive, or otherwise, to existing and potential employees.

Fundamentally, it can be assumed that managers who engage in RBLL would like to be recognised as successful leaders, and this requires them to put their own reputations on the line. This journey can induce egocentric behaviour and RBLL leaders with extraverted, narcissistic traits can appear outwardly confident and persuasive, seeing themselves as ‘saviours of the enterprise’, while those with destructive, narcissistic traits enjoy the power and turbulence, but care little about any lack of popularity in enacting change. Either way, we suggest that both of these extremes within RBLL are harmful to sustaining an effective workforce development strategy, and in many of our chapters we have been reminded how the success of workforce development projects was determined over several years and depended heavily on the sustained support of senior executives. In Chap. 11 we were reminded that the behaviour of CEOs can be influenced by life experience and this knowledge tempts new CEOs to adopt strategies and plans brought from their past. Retrospective appreciation is an important part of experiential learning and new ideas can accelerate much-needed change for the better. However, in Australia, the CEO turnover rate has been reported at 23.5% [or 4.4 years] compared with the global average of 14.2% [7.2 years] (Johnson 2013). This high level of turnover at the top in Australian organisations, and resulting turbulence with each episode of RBLL, makes the implementation and evaluation of workforce development strategy a tenuous activity and highly vulnerable to changes in direction. Simultaneously, longer serving employees at the operational end of the organisation learn to disconnect with recurring episodes of RBLL and can readily become disengaged or sceptical.

Learning-Centred Leadership

We address this topic with a growing sense of consciousness that new paradigms of workforce development are created in an organisational culture that blends leadership with learning—so that the two topics become almost inseparable. Studies on the concept of a ‘learning organisation’, made famous by Senge (1990), have raised our awareness of shifting priorities in workplace education and training to deal with a new world order we now understand as globalisation and the knowledge economy. However, several chapters in this book have also recognised an important change in what it means to be a leader. For instance, organisations have become less hierarchical, complex and diverse, and we know that leadership is no longer the preserve of top managers, but something that can be enacted by everyone. In less hierarchical

organisations, studies refer to the use of servant-centred leadership where the leader focuses on helping another person, or team, in a way that enables them to perform more effectively and gain satisfaction from their improvement.

The holistic nature of workforce will require 21st century leaders to recognise the value of learning as a source of competitive advantage and survival, which is why so many chapters in this book have stressed the need for CEO support in leading workforce development projects. In a knowledge-based workplace, managers are recognised as having a ‘key role to play in facilitating learning’, so it is easy to understand why leaders should have *educator* or *trainer* included in their portfolio of capabilities (Beattie 2006, p. 103). On the flipside, it has also become clear that practitioners directly involved in education and training have become leaders by nature of their positive role modelling and subject-matter expertise. For example, when people sign-up to become workplace educators, they indirectly subscribe to become servant-centred leaders. We know that educated managers who have benefitted from university qualification programs, such as an MBA, are more likely to support education and training for their colleagues. A report compiled for the UK Chartered Management Institute discovered that qualified managers are more likely to invest in qualifications across their workforce and drive up the level of skill (Wilson, Woodman et al. 2007).

Conclusion

In this final chapter we have endeavoured to capture the essence of workforce development by delving into a wider range of contemporary issues and perspectives that may shape the future of learning activities in organisations. It seems likely, as a consequence of these issues, that the strategies and practices deployed by organisations will become less predictable, more diverse and challenging for upcoming HRD professionals, compared with those who have gone before. Yet, looking through a critical lens, experienced observers might question if the current rhetoric is merely a case of ‘old wine in new bottles’. On one hand we see a repeat of traditional concepts drawn from classical management theory such as the need to include and engage people in their workplace development projects; while at the same time, these traditional methods are now operationalised using new technologies and branding, as discussed in Chap. 2, that capture a 21st century need for organisations and people to stay ahead of the game.

Finally, we suggest that many of the chapters in this collection converge on one overriding issue that relates to building employee capability and engagement, more specifically, how organisations can unleash the discretionary effort needed to maximise performance at the macro and micro levels. Taking a view that attitude and performance are linked, this suggestion might indicate that the essence of workforce development is *ontological* in that it delves deeply into the psyche of how employees feel about personal safety and recognition in their places of work (Field 2004). *Performance* has become a controversial and ever-present word in HRM language and is

polished on the abrasive wheels of change and technology. In a market driven ideology, performance is positioned as an essential ingredient in the building of economic success, and one that is pursued without limits. Yet humanist's off-set the sharp edge of performativity with talk of wellbeing and lifestyle balance—somehow hoping that the softer narrative will offset any pain. These questions lead to a realisation that future HRD or workforce development strategies need to be more sustainable and search for a return on expectation (ROE), especially when a return on investment (ROI) is less achievable (Anderson 2007). Studies on sustainable HRM are starting to question the notion of endless growth (Ardichvili 2012) and not only place greater value on how employees are treated a humans, but also link workforce development with global issues such as maintaining corporate social responsibility to make the world a better place. In the second companion volume we explore further the issues and perspectives featured in this book and translate them into the strategies and practices used in organisations.

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