Chapter 14
Towards a National Continuing Education and Training System

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14.1 A System of Continuing Education and Training

Throughout this book, learning beyond post compulsory schooling to maintain individuals' capacities for productive work, licensing and on-going employability is described in various terms – professional development, continuing professional development, on-going development, ongoing occupational development, workplace training, etc. For simplicity, in this chapter we use the term continuing education and training to interpret learning beyond contemporary post compulsory schooling as described by the terms mentioned above. Regardless of the terminologies to describe post compulsory education and training or how learning is organised, engagement in ongoing learning is now a necessity to sustain productivity, innovation, employability within and across occupations, and societal well-being in a highly competitive global environment. Learning through these arrangements commonly follows the orthodoxies of schooling (Schuller & Watson, 2009) where the curriculum is designed to teach and assess individuals. Yet, the case studies in this book illustrate several models extending from learning that takes place wholly in educational institutions across educational institutions, to those based wholly in the workplace and provided by in-house trainers, product suppliers and trainers from registered training organisations. These cases challenge the prevailing models of ongoing work-learning provisions based on initial occupational preparation, suggesting that such provisions alone are inappropriate for the effective ongoing development of workers' capacities and that other, more work- and worker-directed models offer greater opportunities for securing the kinds of learning practices and outcomes that contemporary workers and workplaces require.

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We advocate that the four proposed models and related processes and practices, as noted in Chap. 11 and further elaborated below, can be situated under a national framework which affords workers and their employers' appropriate levels of regulation, certification, and standardisation, yet meet particular occupational and workplace requirements to sustain individual, industry and national interests. For instance, those employed in the workplace which has a unique function may want certification which will allow them to demonstrate their ongoing competence should they move to another workplace. Those employed in work that has particular safety or duty of care concerns (e.g. health care workers, teachers, air-traffic controllers, etc.) might require adherence to particular sets of occupational licensing arrangements which change over time. The Australian study informing a national framework for continuing education and training, reported in Chap. 11, provides an example that can be adapted to suit systems in other countries. The Australian framework is now briefly described before highlighting the distinct contributions to be considered from other cases in this book.

14.2   Australian National Framework for Continuing Education and Training

In the Australian context, a national provision of continuing education and training must encompass and accommodate the disparate and often competing needs and expectations of many vested interests. This complexity cannot be overstated. The range of participants traverses everything from Federal governments and their ideologically driven understandings of national economies and social wellbeing in a globalized world through to individual workers and their personal motivations and aspirations for both their immediate work commitments and their sustained employability. It engages the breadth and depth of macro level national social systems and institutions including education, commerce and industry, welfare, health, etc., and the meso-level energies and concerns of small businesses and local communities, and individual citizens comprising the nation's human capital at the micro level. Such a dynamic set of mechanisms comprising common, yet sometimes competing interests makes continuing education and training a significant vehicle to sustain Australia's social and economic goals. This significance is not simply because change threatens national and social decline for those who cannot keep up in increasingly competitive economies (as real as this may be). More than this, continuing education and training is highly significant for nations, organisations and persons alike because the nature of change and the increasingly complex contexts in which it is both generated and responded to suggest that needs and expectations of the future will be decidedly different and, therefore, unable to be effectively addressed by existing systems and methodologies.

The need for different perspectives to address new and emergent issues formed part of the rationale supporting United Kingdom's recent Future of Work report (UKES, 2014, p. 9):

> Today, in the face of increasingly volatile markets and global change, many decision makers are asking whether the tried-and-tested forms of strategy development are still appropriate. In many sectors global change has called into question not just a company's portfolio, but its entire business model. The upheavals and crises of the last decade have made it clear that companies, sectors and economies cannot assume the maintenance of a stable, long-term environment.
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> Predictions of future developments, based on an analysis of historical patterns, are unlikely to be appropriate within rapidly changing systems. Hence, taking into account uncertainties and possible disruptions in the marketplace requires decision makers to think of potential alternatives.

Related sentiments drove the vocational education and training (VET) reform agenda of the current Australian Federal Government in 2014 (DoI, 2014). Arguably, this reform agenda is too narrowly focussed on economic growth through productivity gains, as opposed to broad social and workforce development through supporting learning for an unpredictable future. Rather than seeking genuinely new perspectives that may generate new work-learning practices for new ways of addressing the need to create and sustain the changes that will characterise on-going workforce development through a 'work is learning' understanding, the Australian government is focused on market driven perspectives and mechanisms to address social and economic change. For example, within its policy justifications for the VET reform agenda, the Australian Department of Industry states:–

> The vocational education and training (VET) sector will play a central role in the Government's vision to create a stronger economy, boosting our productivity and our competitiveness by producing workers with the skills employers need. (DoI, 2014)

This statement identifies much about the nature of continuing education and training provision as it is currently conceptualised, practiced and advanced in the Australian context. First, it is dependent on the government's economic vision and a translation of this vision into a stronger economy and the production of workers. Second, it is centred on employers' labour and skill needs and the assumption that employers can and will know and articulate those needs. Third, it is delivered through the VET sector, an increasingly deregulated market of public and private training providers that has been described as highly fragmented, insufficiently and inappropriately funded, and poorly supported due to low teacher quality standards (e.g., AEU 2010; NVEAC, 2011). Effectively, the Australian government's national VET Reform Agenda appears to promote a regulatory driven desire to ensure the current VET sector engages more closely with industry as clients whose needs are to be met. Meeting these needs is the scenario of future success. In essence, such a scenario amounts to little more than a continuation of current practices. However, the Committee for Economic Development of Australia (CEDA, 2015) has recently cautioned that unless the government leads 'the way with clear and detailed education, innovation and technologies policies that are funded adequately' (p. 6), Australia may lag behind in an increasingly competitive global marketplace. Although this alert by

CEDA relates more to responding to rapid changes in technology and a focus on skilling for future jobs, it has implications for workforce development in general. Perhaps unsurprisingly, a large part of CEDA's report on Australia's future workforce focuses on the formal education system (early childhood to university) to prepare for entry into employment. Hence, frequent references are made to 'students'. Yet, a majority of participants in continuing education and training are not students. They are experienced workers seeking to advance their skills sets and social standing through work. Nonetheless, a cursory statement in CEDA's report acknowledges the need for proactive steps to ensure continued employability as a response to increasing redundancies resulting from declining industries.

Continuing education and training practices in Australia have changed little in decades, partly because continuing education and training is not a strong focus of educational institutions. Government funding concentrates on the provision of entry level training for those preparing to enter the labour market and those seeking the necessary accredited qualifications to pursue specific occupational practice (Billett et al., 2014). This type of funded training prepares individuals as competent workers. Their learning needs to continue to a proficient and finally expert level (Dreyfus & Dreyfus, 1986). Yet continuing education and training tends to be generally an ad hoc practice. Individual workers seeking advancement or career change to remain employed and employable, and organisations operationalising a need for upskilling staff to meet their production requirements or comply with regulatory stipulations access continuing education and training for these purposes. So, continuing education and training could be seen as a predominantly personal and organisational responsibility to address particular goals. Apart from the government rhetoric promoting stronger economic productivity through addressing employer skills demand, and unlike VET provisions for entry into employment, continuing education and training in Australia cannot be described as nationally focused or conceptualised and supported similarly in partnership between governments, business and industry, educational institutions and workers who create and enact it. Given the significance of continuing education and training in contemporary societies a national framework is now necessary to afford individuals' employability and sustain the social and economic viability of workplaces, industry sectors and communities within appropriate regulation, certification and standardisation requirements.

Chapter 11 introduced four models of continuing education and training drawn from a recent Australian national study. Here we advance those four models, proposing that they form the foundation for a national approach to the provision and promotion of ongoing work-learning. The resultant continuing education and training framework proposes the types of learning that progress from an established base of occupational enactment to enhance and develop the knowledge and skills generation (i.e., work-learning) necessary to responding to the challenges of the future and the changes it represents. For individual workers, such work-learning is about being adaptive, innovative and confident in their capacities to sustain their employability and advance a working life. For organisations, such learning is about forward planning and generating the learning culture of continuing education and training for growth. For educational institutions and training organisations it is about brokering

and facilitating learning experiences that support personal and organisational development. For governments and regulatory bodies it is about resourcing and encouraging the legislative and collaborative climate in which work-learning is prioritised and supported.

This chapter progresses to elaborate the four models of continuing education and training and their effectiveness in meeting the goals of different stakeholders. Then, the roles of stakeholders in implementing and sustaining the models are outlined. The chapter concludes by drawing on the contributions of other chapters in this book to advance a set of premises for a national framework for continuing education and training for successfully meeting and generating the work-learning future that is emerging from changes taking place in contemporary knowledge based economies.

14.3 Models for Continuing Education and Training

The four foundational models of continuing education and training introduced in Chap. 11 are based on different sets of experiences shared by those who participated in the Australian national study previously noted (Billett et al., 2014). Analysis of learning experiences shared by the research participants (135 workers) and the types of support provisions in the workplace (as described by 60 managers) were the central focus of the four models categorised as: (i) wholly work-based (individually), (ii) work-based with direct guidance, (iii) work-based with educational interventions, and (iv) wholly educational institution-based. Each model serves different sets of purposes, and suits particular circumstances of workers and their workplaces and particular trajectories. The first three models highlight the significance of learning in the context of everyday work practices. Without hands-on practices, workers explained that it would be difficult to fully understand the requirements of their work and the capacities needed to effectively perform the tasks by which it is comprised. One worker put it simply, stating:

> Hands on is the best way to learn. I reckon better on site [referring to preference for learning] 'cause you're more familiar with the ropes and that, so you're more understanding and you take it all in a lot better… And it's my familiar area so I feel a lot more comfortable. (Noela, aged care worker).

Noela's statement reflects the views of others who value the authenticity of workplace settings for developing competencies as advocated by researchers such as Billett (2002), Eraut (2004), and Tynjala (2008). "Just doing it" was a frequent term used to describe how workers learnt what was required to perform their jobs effectively. Statements from two workers reinforced the need to learn at work, although the learning is more directed to meet workplace goals. They stated:

> For this particular job, everything changes every day so… unless you're doing it on the job, there's no way of learning this position (Brianna, aged care worker)
>   … in the truck driving game you've got to do it at work. (Geoff, truck driver).

Learning in authentic settings through socialisation also help workers acquire uncodified cultural knowledge (Eraut & Hirsh, 2007, p. 5) that is distinctly applied in particular settings. Workers and their managers both prefer learning in the workplace because it means greater immediacy and authenticity and little or no downtime, so the business functions continue while work and learning happens concurrently.

Here we elaborate the four models as critical considerations for work-learning practices that might better promote and influence learning provision and support for effective continuing education and training.

14.3.1   Model 1: Wholly Work-Based Experiences

A wholly work-based experiences model focusses on and enables workers to operate individually, and to practice and develop their skills in the course of daily work tasks. Working individually is not working alone. Rather, it is about getting on and doing what one has to do to meet the demands of their work solely in the context of that work. Such work and learning is both personally and collectively enacted. For example, workers observe others and reproduce those practices in ways that are acceptable at their particular worksites. While reproduction imitates what others do, it does not necessarily ensure that individuals acquire the conceptual understanding that underpins the tasks they carry out. Nonetheless, individuals do have the opportunity to seek conceptual knowledge if they recognise a need and will do so through the resources available to them in their work (e.g., manuals, colleagues, policies, etc.). Hence, well-resourced workplaces that support access when needed and desired are better able to support wholly work-based learning. Through work, workers can also have opportunities to initiate and create innovative solutions to improve their practices. In a wholly work-based-experiences model, individuals engage in self-reflection, use learning styles that they are most comfortable with and set and monitor their own goals. For instance, one may practice a set of tasks to gain efficiencies or master the skills so that the conduct of the tasks becomes automated. This releases their cognitive focus for other more demanding tasks. Though the tasks are conducted independently, they have access to others who provide peripheral support. Importantly, what workers need for this model of learning are opportunities (space, time and resources) to practice their work tasks and develop the enquiry and observation skills that support learning through practice.

There are three key shortcomings if this becomes the only approach to learning. First, workers may adopt bad habits that have consequences they may not be aware of at the time and, therefore, can be ill-prepared to manage risks when there is a mishap. Second, learning in a single workplace may adequately prepare individuals with only a narrow set of skills that suit that particular workplace, yet have limited applications in other sites. Third, learning through wholly work-based experiences is not accredited, although not all the learning necessarily needs to be accredited. So, the development of more comprehensive sets of capacities will necessitate

learning through other complementary models in the framework proposed in this chapter.

Notwithstanding the limitations of a wholly work-based model, workers value learning in the context of work because it is relevant to the tasks that they are performing, build on what they have already learnt and can be applied immediately (just-in-time learning). Further, learning through wholly work-based experiences supports autonomy, self-reliance and opportunity to appreciate and evaluate personal strengths, interests and priorities. It is self-initiated and unstructured by others' intentions so individuals exert and develop some control over what and how much they wish to learn and for what purposes. Undertaking all of this effectively relies on their ability to clearly identify learning needs, be self-directed and motivated, and take an agentic role in creating, accessing and responding to opportunities. Equally, it relies on the nature of their work and the degrees to which employers and workplaces enable and support workers' self-investment in the learning requirements of their work.

14.3.2   Model 2: Work-Based with Direct Guidance

In this second model workers' learning is again based in the context of their work, and purposefully supported through direct guidance from more experienced co-workers or work supervisors, often working alongside them. The arrangements for direct guidance can be formal (a structure of work practices at a site) as well as informal and casual. Deliberate sets of opportunities are afforded and structured to make required learning contextually and occupationally relevant and suit regulatory requirements. For example, learning episodes may include new skills development and the sharing of information and understandings that cannot be gained through independent learning alone. For instance, safety-related briefings at the start of a shift at a mine may provide an update on safety issues, demonstration and discussion of a particular technique to avoid accidents, and opportunity to re-acknowledge workers' roles in maintaining safe work practices. Some of the learning in this model can be opportunity based, in interdependent ways, where these are deliberately organised. For instance, the buddy system used in the aged care facilities where workers operate in pairs, one more experienced than the other, is purposefully organised direct guidance. Allowing workers to act in roles above their current level or work rotations in a range of areas (eg., as in the finance sector where employees moved routinely through different departments so as to gain a strong overview of their company's operations). In each new department they enter as novices needing, and afforded opportunities to learn and be guided by others. Another example is when a team with workers from different areas address a particular issue through action learning/research or project based tasks. Strategies for guidance may include mentoring, coaching, demonstration, one-to-one instruction and feedback. The success of a *work-based with direct guidance* model depends on the willingness of workers to engage with and accept the guidance offered. Equally, it depends on

the expertise, availability and willingness of those providing guidance, in terms of their work knowledge and pedagogical skills. Moreover, those providing guidance need to be acknowledged and respected as credible experts. It becomes necessary to ensure training is afforded to these in-house experts for effective mentoring or coaching.

Hence, shortcomings of this model include its reliance on the quality of the guidance offered and secured. Poor guidance (e.g., lacking in expertise, unavailable when necessary, minimally supported, etc.) will equate with poor learning process and outcomes. Relationships become significant elements of guidance offered and accepted. Respect and trust are fundamental requirements. Without such relationship qualities, effective learning is jeopardised. Where these qualities are strong, among the guides and the guided, as well as among those positioned outside the structured arrangements, work-learning may be strengthened.

14.3.3   Model 3: Work-Based with Educational Interventions

This model focuses on and enables learning in and through work that is augmented by the supportive intervention of educational and subject area expertise. This kind of learning is typically structured and facilitated by qualified trainers (in-house or from registered training organisations) to extend learning through work activities and make it certifiable if necessary. Educational interventions could take place during work activities or after work hours, onsite or in educational institutions (e.g. as sandwich/block release), could follow traditional didactic pedagogies and tutorials or take the form of coaching or mentoring by a qualified expert. Didactic provisions could include directed group processes and facilitated learning circles. Importantly, provisions through educational interventions are designed for accreditation or licensing purposes. Increasingly, VET providers involved in workforce development of enterprises engage in this model. The main attractions of this model include flexibility in offering learning services to the worksite, delivering during work time, and offering accreditation. Workers tend to value this as a credible source of learning for accreditation. Trainers may have input on- or off-site, and use for example, action learning projects to extend workers' learning. Input from these trainers is normally sponsored by the employers. Importantly, trainers from registered training organisations providing educational interventions need expertise in customising learning content to suit the context of particular workplaces and groups of workers, and be flexible in terms of meeting workplace schedules. Specific competencies in brokering training plans for workforce and organisational development are also helpful.

Overall, the success of this model relies on the subject area expertise and pedagogical skills of the trainers deployed; the resources and capacities of the educational and training organisation responsible for the interventions designed and enacted; respectful relationships between workers and their trainers; and productive partnerships between workplaces and the organisations that assist with educational

interventions to their workforce. Hence the shortcomings of this model reside in the increasingly complex interdependencies operating among workers, trainers and employers in the domains of business, administration, expertise, pedagogy and relationships that necessarily intersect through this model of learning provision. For example, employers are often positioned as fee-paying clients of educational and training institutions that are in themselves businesses operating for profit in the competitive market of the supply of training and accreditation. Trainers may be highly experienced experts in their field but lack the pedagogical foundations on which to design and implement effective learning experiences for workers who may, in turn, be unwilling participants in training they do not accept as necessary or are obliged to undertake because of other politically sensitive reasons that are specific to their working relationships and opportunities. Yet further, geographic isolation, budgetary restraints, competing perspectives on training as cost and training as investment, capacities to address regulatory requirements, contested notions of 'best-practice', poor planning and lack of strategic oversight are all significant obstacles to the business of workforce development in the immediate sense of production and service provision, let alone the long term scales that mark considerations of personal career and organisational growth at the heart of the educational intervention decisions on which this third model is dependent. Hence, large city-based organisations can more readily and effectively undertake the range of negotiations necessary to connect workers, trainers and employers for on-going learning provision. Importantly, this model is both common and familiar in market driven economies and so may represent practices that are difficult to develop and transform for the new circumstances of rapid work change. For example, the deregulation of the Australian training market in recent years has seen the proliferation of small training organisations that may be under-resourced and ill-prepared to address the national scale workforce development issues facing the country.

14.3.4 Model 4: Wholly Education Institution-based Experiences

A *wholly educational institution- based* model focusses on and enables workers to pursue work related learning away from the immediacy of their work requirements and within the pedagogical resources of a learning -focussed set of intentions and processes that are institutionally structured and supported for often highly specific purposes and outcomes. This model predominantly serves two main goals: (i) allows workers to learn new and innovative ways to bring about changes in their workplace; and (ii) enables career changes for workers. This model is helpful when learning and certification cannot be achieved through work-based experiences alone. It could include a range of conventional pedagogic processes such as lectures, tutorials, webcasts, and facilitated group processes. Unless sponsored by their employers, worker-learners may engage in learning at their expense and outside

working hours. However, employers may support selected individuals' career development by allowing time off at agreed phases of the study. This model demands flexibility in educational provisions by training providers so that worker-learners can balance work, family and study commitments. It also calls for training providers to have in place on-going support for on-line and self-directed learners.

So, learning through this model may be directly work related and supported as workers engage in courses of study that can enhance their occupational practice and work trajectories for both personal and organisational gains. Equally, this learning may be indirectly related to work and based on solely personal goals for development or future work aspirations. Shortcomings of this model are at their most evident when the purposes of engagement are directly related to work. For example, strong disconnects between learning and work (through time, distance, purpose, etc., at conceptual and procedural levels, etc.) can mean lack of relevance, disparate goals, wasteful distraction and additional costs for learners and organisations. Such separations may be welcomed as elements and indicators of alternatives and diversity. Equally, they may be hindrances, unforeseen and emerging, that challenge the quality and purpose of the learning being undertaken.

The four models and aspects of their effectiveness are presented in Table 14.1 below.

The first three models necessitate little or no downtime for workplaces and hence were widely supported by managers and employers who participated in the Australian national study. However, there may be a potential tendency for learning to focus on a narrow set of knowledge and skills to suit particular worksites. Nonetheless, engagement of external experts and VET practitioners could introduce new knowledge and ideas for innovation and extend the scope of workers' knowledge and skills. Such an approach is strongly recommended by Eraut and Hirsh (2007) who argue that experts' knowledge of trends in occupations place them well to advise about updating technical knowledge and skills.

All four models can be supported through three sets of provisions. These are:

1. Allowing individuals to learn while working alone, but having access to further information and experts when necessary
2. Facilitating or guiding group processes to share information, and learn while working together
3. Teaching or training in the workplace by qualified trainers from within the workplace or a registered training organisation.

Fundamentally, it is the learning curriculum, appropriate pedagogic arrangements and personal epistemologies that underpin effectiveness of the four models. The effectiveness of the four models of continuing education and training proposed in this chapter was appraised as part of the study, and the outcomes of that appraisal are summarised below.

Table 14.1 Effective models for continuing education and training

	Wholly work-based experiences	Work-based with direct guidance	Work-based with educational interventions	Wholly educational institution-based experiences
The medium for learning is through:	Individuals' everyday work activities and interdependent interactions	Engagement with more experienced others (e.g. expert peers, supervisor, trainers)	Structured training and often assessment by e.g. accredited trainers, workplace supervisors, vendor trainers	Classes in RTOs or on-line, taught and assessed for accreditation
This model is effective for continuing education and training because it:	Is work-relevant, addresses immediate needs, is accessible, practical and builds on previous learning	Provides new skills, information or understandings that workers cannot achieve without guidance	Draws on trainers with industry expertise, links training and work, provides basis for accreditation and certification	Enables access to structured training not available through work
Learning and teaching strategies include:	Observing and reproducing observed skills, active independent and interdependent learning	Mentoring; coaching; demonstration, direct one-to-one instruction and feedback, related directly to work needs	One-to-one and group instruction, teaching on-or off-site, simulated and actual work-related training	Face-to-face classroom teaching and structured online courses
Workers mostly employ this model when:	Enacting their everyday activities and interactions through their work and with co- workers	The learning they require is beyond their current level of skill or understanding to be advanced independently	Learning is workplace-specific, to meet workplace or occupational requirements, and needs to be assessed and certified	Learning and certification is for future purposes, and cannot be learnt through work

Source: Billett et al. (2014, p. 27)

14.4   Effectiveness of the Models

The utility and efficacy of the four models of continuing education and training were appraised through consultations with VET professionals (62) and eight personnel from three key workforce development agencies. Discussions for the

appraisal were based on four case scenarios representing each of the models. The conversations were guided by three questions when considering each model:

 (i) In what ways is the model an effective and sustainable model of continuing education and training for your industry or discipline?
 (ii) What do different stakeholders need to do to make this model effective in continuing education and training provisions?
(iii) What changes are required to the broader education and training system to more effectively support this model?

Their responses to these questions are summarised below.

(i) Effectiveness and sustainability of the models

Based on a diverse range of experiences in working with different industries and types of workers and workplaces, the VET professionals who participated in the review stressed four conditions that underpin effectiveness and sustainability of the models: (a) learning to take place in circumstances of authentic work practices; (b) learning to be aligned to ensuring benefits to the workplaces; (c) appropriate and specific VET pedagogies to support workers' learning in the workplace; and (d) adherence to compliance and accreditation to maintain systemic consistency. It was widely acknowledged that authentic experiences could include those in real work or simulated environments. Nonetheless, engagement in learning would depend on conditions such as the size of the workplace, affordances of the workplace and how the tasks are sequenced and the capacity of others to assist workers with their learning. There was general agreement among VET professionals about the benefits of particularly the first three models for workplaces in terms of costs (e.g. reduced downtime and 'back fills', easy access to expertise on site), staff loyalty, and a strategic approach to workforce development. Furthermore, the returns in terms of promoting a learning culture, lifelong learning and advancing specific capacities of individuals to meet productivity requirements were widely acknowledged. The discussants also valued opportunities for VET practitioners to advance their pedagogical domains and embed these into authentic practice settings. Unlike Model 1, Models 3 and 4 were supported to meet regulatory and workplace compliance requirements that VET practitioners are charged with and that underpin most of the publically funded provisions. All stakeholders appreciated and advocated Model 3 (work-based with educational interventions), although practitioners specifically preferred it given that this most closely reflects their current roles in continuing education and training. Many VET institutions see themselves as already actively adopting this model to support continuing education and training across occupations and industries. For the VET practitioners, Models 1 and 2 were seen as indications of how they might enhance their Model 3 practices to support workers' learning when trainers were not immediately available during workers' learning. They suggested providing pedagogical skills training for those workers who would be considered the more experienced colleagues that fellow workers would seek out through their routine work activities. Overall, all four models were seen by the VET professionals and workforce development personnel as effective vehicles for continuing

education and training provision, although with slight reservations about Model 1 because they were unclear about quality and accreditation.

(ii) Roles of stakeholders

Effective implementation of the four models demands particular responsibilities of the main stakeholders: (i) employers and workplace managers; (ii) VET professionals (trainers and assessors); (iii) worker- learners; and (iv) education institutions and registered training organisations. Importantly, all need to share a common value for learning, appreciate a learning culture and appropriately invest in learning.

Workplaces that include learning in their broader business plan and invest in their workers are perceived to be more progressive in continuing education and training of their workers (OECD, 2010, 2013). This demands employers and workplace managers develop learning pathways and have in place the types of affordances and opportunities for workers to engage in learning in the course of their daily work. Moreover, a learning plan embedded in the broader business plan, adequate finances, and engagement of registered training organisations will enable enterprises to have more strategic management of the learning and development of their workers, contribute to the national training system, and be less reliant on funding and support from government sources. Engagement with registered training organisations and VET professionals offers better returns, according to some participants. One of the focus groups from a regional area suggested that continuous improvement and quality assurance needs to be embedded in the design of such plans.

Input from VET professionals to support workers' learning demands additional skills and knowledge. Importantly, they 'need to understand the environment and context of workplace and learners in that workplace'. Essentially, there are five main areas that VET professionals need to be competent in for effective implementation of the models suggested in this chapter. First, expertise and qualifications in the area that they are supporting learning; second, ability to provide flexible and customised learning experiences to diverse groups of learners in a range of workplaces; third, coaching and mentoring skills for workplace learning; fourth, project-based and action learning; and fifth, regulations, compliance requirements and industrial relations procedures for their industry.

Like workplace managers and VET professionals, worker-learners have an important role in effective implementation of the proposed models for continuing education and training. Foremost, they need to value learning in the workplace, assume agency of and also commit to learning in their respective worksites. With this commitment also comes the development of a set of qualities that are necessary to support their learning. These include self-direction and motivation, openness to receiving learning support from co-workers and experts, offering support to other workers, and seeking and securing learning opportunities beyond their immediate work areas to learn in the worksite. It is suggested their individual learning and development plans include clarity around responsibilities for learning and its contributions to work and business requirements so that the benefits of learning can be shared by individual workers and their employers.

Finally, effective implementation of the proposed models necessitates a set of reforms within registered training organisations to allow efficient operations and

ensure quality provisions by their teachers and trainers. Furthermore, they need to support continuous development of staff capacities to maintain currency of relevant industry expertise. Moreover, partnerships with enterprises to support workers' learning demand special attention in terms of responsiveness to their business goals and providing value for money. Rich collaborations must form a key feature of partnerships. On the whole, workers' learning needs to remain central to implementation of the four suggested models. An explicit focus on their learning as opposed to teaching them is highly recommended.

The roles of the stakeholders in relation to each model is summarised in Table 14.2 below.

Aside from the roles and responsibilities of the key stakeholders, reforms to the current VET system (that is primarily designed to develop workers for entry level training rather than continuing education and training) are also necessary.

(iii) Changes to VET System

Participants particularly noted that effective implementation of the four models requires further appraisal of the national focus and purpose of continuing education and training in the two key areas of learning recognition and accreditation, and finance and resource support. First, this means extending current provisions of the national training system in order to appropriately respond to workers and enterprises' learning needs. For example, amendments to the system need to acknowledge and recognise learning and training that lies outside accredited programs. What is required is a system of assessing, reporting and certifying relevant (for accreditation) formal and informal learning in the workplace. It is suggested that current practices and procedures for recognition of prior learning could be extended to serve this purpose. However, the skills of those assessing the learning will need to be developed and accredited. Essentially, learning that meets individual and enterprise requirements, as well as accreditation purposes will need to be moderated and recognised. So, there is a requirement for some flexibility given the challenges presented by a diversity of learners and workplaces.

Second, changes are necessary for improvements in the finance and funding distribution models to recognise learning in the workplace, and meaningful contributions of individual workplaces to workforce development. According to VET professionals, finance is also needed for practitioners to maintain currency of industry knowledge and skills. Such investment needs to be equitable and performance driven.

In summary, those engaged in enhancing and supporting on-going learning through continuing education and training provisions each have a different role in the learning process for each model, as outlined in Table 14.2 below. The best outcomes are likely to be achieved when stakeholders collaborate to enhance and support workers' learning with flexible and responsive regulatory frameworks. The learner needs to remain central to these stakeholder positions and practices. The degree to which stakeholders can create and sustain the flexibility to recognise and support a diverse set of processes, places and practices that constitute ongoing work-learning will indicate the degree to which they can ensure the learner is central

Table 14.2 Stakeholder actions and attitudes to enhance continuing education and training

	Wholly work-based experiences	Work-based with direct guidance	Work-based with educational interventions	Wholly educational institution-based experiences
This model is effective when				
Workers	Acknowledge a need to learn, have access to learning-related work activities, are self-directed, curious and pro-active	Regard the source of direct guidance as credible, can immediately apply and practise what they have learned	Regard the source of accredited training as credible, see value in certification or accept the need for it, have sufficient literacy and numeracy skills	Can fit the learning in with their work and family commitments; identify relevance of the training for future work
Supervisors	Are supportive of workers' learning, provide opportunities for new activities and learning	Are available, are experts in the work area, are competent as trainers, mentors, guides, and can provide feedback and follow-up support	Support employees' learning by organising and/or supporting educational interventions, and value assessment and certification	Support employees' educational goals through organising support, time off for study, and access to workplace expertise
Managers	Encourage support for learning through work-based activities and build on them	Recognise and support supervisors' role as guides, trainers or mentors, provide opportunities for new learning	Organise training and require assessment and certification, through partnerships with RTOs, and focus on workforce development	Sponsor employees' educational goals through financial support, time off for study commitments
Training providers	Assist workplaces to structure workers' experiences and learning, advise about workplace curriculum and pedagogies	Assist workplaces to structure workers experiences and learning, and assist in building capacities for training one-to-one	Are flexible about training times and locations; ensure staff are well trained; make training relevant to enterprise needs, and provide follow-up	Offer flexibility in educational provisions to meet workers' circumstances, recognise workers' prior experience and provide follow-up support

Source: Billett et al. (2014, p. 28)

to their efforts. A broader set of premises is required for ongoing learning across working lives which flow through to a wider range of occupations and circumstances of work than those derived from the Australia study. Billett and Hodge (in Chap. 1 of this book) outline considerations of premises for learning through and across working lives. Similarly, in presenting empirical findings, other authors (e.g. Poell & Van der Krogt in Chap. 2; Avby in Chap. 4; Wegener in Chap. 6; Noble & Billett in Chap. 8; Cantillon in Chap. 10) also suggest approaches for supporting and guiding learning that inform a range of premises for continuing education and training.

14.5   Premises for a National Framework for Continuing Education and Training

The efficacies and emphasis on practice-based learning approaches are highlighted across chapters in this book, thus exemplifying ways that learning through Models 1, 2 and 3 could be organised and supported. In Chap. 6, Wegener makes reference to the broad national concerns for innovation within Denmark and how this has become a driver of national policy. Her accounts suggest that there is often a societal or national imperative underpinning a concern for workers' ongoing learning and development. Her model highlights how the significance of interrelations between innovative work activities in the context of professional work practices aligns with continuing education and training Models 1, 2 and 3 proposed in this chapter. Avby (in Chap. 4) takes this notion further by suggesting workplace reflection as a deliberate strategy to promote professional learning and the remaking of practice. She promotes the premise that effective learning result when workers engage in rich interactions with different knowledge sources, research, practice and policies in the workplace. The important contributions of interactions with others is emphasised by Cantillon (in Chap. 10), who calls for strong support for workers who are required to operate in social isolation, yet meet acceptable standards. While socially isolated practitioners such as medical practitioners tend to learn mostly in the context of their practice, Cantillon argues that social and reflective opportunities are required for normative comparisons, interpreting and making sense of dilemmas and unusual cases, and self-assessment of learning and developmental needs. Similarly, Noble and Billett (in Chap. 8) present a case on how interactions between professional practitioners from within the immediate practice community and other associated professionals can bring about collective change that contributes to individual capacities and at the same time transforms occupational practice.

The case of learning from mistakes outlined by Bauer, Leicher and Mulder (in Chap. 7) stresses the importance of socialisation and appropriation of classes of knowledge and rule-based errors. The authors argued that socio-cultural settings in the workplace provide useful structures to support learning from errors. Eppich, Rethans, Teunissen and Dornan (in Chap. 3) focus on the significance of continuing

education and training throughout the careers of medical doctors who are required to maintain evolving knowledge of medicine and apply these in the social context of their clinical practice. The role of discourse and 'talk' as important mediators of learning and accurate communication required in particular social and practice settings is highlighted. These authors argue that learning and medical practice are inextricably linked so continuing education and training needs to be in authentic settings to contextualize knowledge and skills. The notions of collective competence, intersubjectivity and reciprocal interdependence highlight the social nature of learning in practice settings and suggest ways in which such learning is achievable through Models 1, 2 and 3. Further, Eppich and his colleagues advocate the significance of 'talk' as a medium for collaboration and learning, so that learning is not seen as acquisition but as participation. However, there are challenges in certifying such learning. Indeed certification of any type of learning in the workplace requires careful consideration to meet professional standards and regulatory requirements, but can be achieved through educational interventions. Eppich et al. go on to propose ways to structure collective learning processes to augment what is learnt in practice. The notion of collective learning by a community to sustain a practice community is illustrated in the case of medical doctors and pharmacists co-working and learning through ontogenetic ritualization and is further elaborated by Noble and Billett (in Chap. 8).

In numerous ways, the authors in this book have identified and elaborated sets of work and learning circumstances that offer insights into the relational interdependencies that govern the quality of workers ongoing learning. Personal histories, the contextual politics of workplaces, relationships with people, systems and occupational knowledge bases, personal and organisational plans and aspirations, national economies, ideologies and the supply and demand of the market place, technological change and the challenge meeting the demands of the future, are all aspects of effective learning that come together in continuing education and training provision. The kinds of balances generated by these mixed mediations are complex. Poell and his colleague (in Chap. 2) call on greater individual agency in their professional development by operating more strategically to meet organisational and personal goals through opportunities available in the workplace. Unwilling learners meeting unqualified trainers in obligation-driven responses by under-resourced employers to ill-informed policy directives by reactionary regulators may represent a weak scenario for continuing education and training provision. However, the corollary best case scenario seems equally unrealistic in any but the best of working worlds. In any case, ultimately at the micro level it is the individuals whose efforts underpin effective learning, therefore their learning capacity and agency need to form an important premise for any national framework for continuing education and training.

The chapters of this book express bases for enhancing effective work-learning. These bases or premises advocated in the various chapters stand as key elements for effective continuing education and training models. Overall, the cases in this book confirm six key premises for effective implementation of continuing education and training models identified in the Australian continuing education and training study (see Billett et al., 2014). First, sets of learning activities and opportunities need to be

customised and form part of regular affordances to appropriately meet the needs of workers and their workplaces. Such a learning plan could commence with close guidance and monitoring, followed by a requirement for individuals to gradually become self-directed and agentic in seeking, accessing and securing opportunities to learn what is required for immediate and future work. Careful and strategic planning, design and well-resourced implementation are essential. Second, any learning plan needs to be guided by more experienced co-workers and experts, including those from VET institutions. The pedagogical capacities of guides and coaches need to be developed for them to appropriately support workers' learning. Third, workers need to initiate and effortfully participate in learning for current as well as future productive work. Workers know the changing conditions that drive their work. Further, they know how to learn and how to learn well within the circumstances of their practice. They must be supported to enhance these practices as part of their routine work. Fourth, workers need to play an agentic role in identifying what they need to learn and the best ways to organise that learning. Additionally, they need to manage self-directed learning during periods when there is little or no guidance available. Such organisation and management roles need to complement employer goals and directions, not be subject to them. Fifth, where necessary, arrangements for certification and accreditation of learning may need to be secured. Finally, procedures and processes for certification need to consider variations in practices in a range of contexts to accommodate diversity in the size of workplaces and specific occupational requirements of particular sites.

Although each of the cases reports on different aspects and sets of concerns, collectively there is strong inference to national imperatives because models, processes and practices that respond to those concerns will continue to support learning across working lives. The requirement for a broader framework for national continuing education and training provision sits well within the four models advocated in the Australian project. These models and the premises on which they need to be based cannot by themselves result in effective continuing education and training. Governance is needed at a national level to support negotiations that can accommodate the interests of the national economy, industrial foundations and employer enterprises, and individual citizens.

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