Workplace practices that support learning across working life

Sarojni Choy Anh Hai Le Griffith University

In an ever-changing world of work, workers are expected to maintain currency of changes through lifelong learning to sustain employment and transition into new jobs or occupations - as the need arises. Adult workers rely on affordances from societal, workplace, community and educational institution sources that offer opportunities - intentional or sometimes unintentional. Productive engagement in these opportunities leads to positive outcomes in terms of learning and employment, although adults' personal epistemologies, agency, and intentionality determine which affordances they engage with, in what ways, and for what purposes (Billett, Choy and Le, 2023). Moreover, working age adults' learning is largely and necessarily premised on their own constructive efforts albeit with guidance from those with whom they work closely. According to the Organisation for Economic Co-operation and Development, the working age population is defined as those aged 15 to 64 (OECD, 2023). In Australia, the working age can be extended to 74 (Australian Bureau of Statistics, 2023). Working age adults' worklife learning is sustained through permutations of lifelong learning and lifelong education that enables them to navigate

different kinds of transitions that may arise due to institutional or personal factors such as life stages, employment status, occupations, re-locations, health and personal preference or trajectories (Billett, Choy & Le, 2023). This means that lifelong educational provisions need to extend beyond those from educational institutions to include experiences in workplaces and the community. The growing realisation of the potency and importance of learning experiences in workplaces and other social settings is now attracting a greater consideration of these sites for ongoing learning of working age adults. This calls for learning in the course of everyday work to be acknowledged and systematised around work practices.

In this paper, we illuminate and elaborate on workplace contributions to learning that support individuals' employability across working life. Drawing on the worklife history interviews (n=66) and a survey (n=678) data from an Australian Research Council funded project [DP 190101519], we report and discuss working age adults' perspectives of workplace affordances. The findings from the interviews indicate that three work-based models suggested by Billett et al. (2016) are most appropriate for supporting workers' learning in their work settings. These are wholly work-based experiences, work-based experiences with direct guidance and work-based experiences with educational interventions. The affordances and practices of workplaces are central to supporting workers' lifelong learning in workplaces, but they also need access to lifelong education provisions to maintain currency of knowledge and skills to sustain employment.

Keywords: workplace learning, lifelong learning, lifelong education, work transitions, work-based experiences, work-based learning models

Lifelong learning and lifelong education

Permutations of lifelong learning and lifelong education enable workers to sustain continuance in learning when negotiating and navigating occupational and workplace transitions to maintain productive working lives. The notion of 'lifelong education' and 'lifelong learning' is often misconstrued and the terms are erroneously used interchangeably (Searle, 1995). Lifelong education is described as an institutional objective, where the provision of experiences is designed to serve its educational purposes. Programs and the relevant curriculum are specifically designed to achieve defined learning outcomes. Lifelong education can include intentional and unintentional programs or experiences, whether as part of programs by educational institutions or other forms of provisions that adults can access and engage in. Lifelong learning refers to learning across the course of the working lifespan, whether within a single occupation or for new and emerging occupations. In this way, lifelong learning serves person-specific goals and can be sourced outside the provisions by educational institutions (Billett, 2009) in workplaces or the community.

Worklife learning comprises what is provided and afforded by educational institutions as intentional education programs and experiences (Billett, 2009), and what individuals access and mediate from other sources such as workplaces, communities, and social and online spaces. Adults learn through educative experiences designed to guide, assist and support engagement in activities and interactions, either directly or indirectly. Such experiences (intentional or unintentional) assist in learning the practices of particular communities (Gherardi, 2009) like those for particular occupations or vocations. In most cases, learning that does not constitute lifelong education (i.e., provisions of educational institutions) is less privileged even though research (e.g., by Eichinger & Lombardo, 1996) shows some 70% of learning arises from experiences in the workplace, 20% from interactions with other and only around 10% from formal courses. The 70:20:10 model refers to work-related learning that workers can apply immediately.

In essence, it is the combination of lifelong education and lifelong learning that enables workers to navigate between employment, unemployment and retirement (Choy & Le, 2023), though how individuals view these provisions and their efficacies for working lives may vary across gender, age and cultural/ethnic backgrounds (Billett, Le & Salling-Olesen, 2023). Moreover, lifelong educational provisions need to consider the nature of transitions that adults encounter and how their learning in the workplace, for instance, can be supported to maintain currency of knowledge and skills to sustain employment. Much of the continuing learning for work takes place in the context of work, in work settings – both physical as well as virtual spaces. It is the interactions in intersubjective spaces that enable learning. So, workplace learning is not restricted to the physical setting, but rather the intersubjectivities that translate into learning.

Transitions in working lives

Transitions in working life arise from institutional or personal factors such as changes in life stages, employment status, occupations, relocations, health and personal preferences or trajectories. According to Smith (2023, changes require adults to negotiate pathways for transitions into alternate work arrangements. Billett, Choy and Le (2023) explain that transitions are mediated by individual agency, through educative support and affordances by institutions, workplaces and communities. At the individual level, it is their capacities, personal needs, ambitions and chosen trajectories that drive how adults secure and engage in learning to navigate transition. Educative experiences that are intentionally designed to support learning allow adults to prepare for current and emerging occupational requirements. Beyond the workplace, it is the family and familiars, and ethnic/cultural affiliates that extend opportunities. Then again, adults also have their own personal curriculum, comprising their unique life experiences that form a foundation to enrich knowledge and understanding (Billett, 2023). Given such a wide scope of sources for learning, it means that the learning curriculum exists beyond just what is intentionally designed by educational institutions. Regardless of the source of learning, the quality of guidance, support and assistance is crucial in terms of meeting lifelong learning aspirations.

In summary, positive outcomes of lifelong learning and lifelong education hinge on the affordances from societal, workplace, community and educational institution sources that offer opportunities that are intentional or unintentional. The opportunities afforded, guidance and support provided may occur by happen chance (Billett, Le, Choy & Smith, 2021). However, the level of success counts on the agency of the individuals in securing, accessing and engaging in the opportunities because it is they who decide on their intentions, and how they will engage.

Role of workplaces for ongoing learning

There are many benefits of learning based in the workplace. These include securing employment; remaining current and employable; advancing careers; changing occupations or careers; bringing about workplace change/innovation; and realising national economic and societal goals (Billett & Choy, 2012). This kind of learning provides workers with a more holistic development path when compared with the curriculum provided by educational institutions. In workplaces, practice-based approaches to professional development and continuing education and training are becoming more common (Billett, 2010; Frost et al., 2010). An emerging body of empirical research (see for example Eraut, 2007; Billett, 2004, 2009; Fuller & Unwin, 2011) offers convincing evidence on the efficacies of workplaces as a learning site. This research has awarded greater legitimacy to the efficacies of workplace learning (see Tynjälä, 2008, 2013 for review). Affordances for learning in the workplace are materialised by the norms, forms and social-cultural practices in the physical and social circumstances of the site, albeit may be contested by those who have worked in a workplace longer or even those who hold more senior positions.

The kinds of opportunities and support can vary. Some workplaces provide opportunities through continuous training and professional development that may include different kinds of learning strategies such as coaching, mentoring, job rotation, action learning, special projects, peer support, acting roles, or structured training. Certain kinds of affordances are in place to meet regulatory requirements, registration, certification or compliance while others are more discretionary. The provision of structured training could be in-house, delivered by internal trainers or outsourced to external trainers. Working across sites of the same organisation may also be available. However, all these provisions need some form of guidance. Billett et al. (2023) propose seven considerations to support workers' learning. These are:

- 1. Understanding the personal curriculum of individuals: Knowing the intentions of adults and their purpose of learning can inform the kinds of opportunities they most require.
- 2. Offer of continuous training and professional development: This has benefits for workers as well as the workplace in terms of maintaining currency of knowledge and competence as a way of

sustaining productivity.

- 3. Opportunities to work across different settings: Workers who gain experiences in more than one site not only expand the scope of site experiences but also have a better understanding of whole of organisation operations. This also makes them more flexible to stand in if there is a need for extra help at a particular site.
- 4. Rotation of work roles or engagement in different kinds of work: Such opportunities expand capacities in different roles.
- 5. Engagement in an educational program to upgrade knowledge and skills: Enrolment in educational programs allows workers' learning and experiences from different sources to be recognised and certified.
- 6. Allowing workers to practise a high level of discretion to enhance decision making and risk taking.
- 7. Progression into more senior roles: These opportunities form an integral part of preparations for career planning and development.

The list above includes the inclusion of expansive and restrictive learning environments recommended by Fuller and Unwin (2011). These considerations imply that a broader set of opportunities to participate enables extended development experienced by workers (Billett, 2001). However, the efficacies of learning in the workplace are optimised when augmented with direct guidance or educational interventions.

Billett et al (2016) suggest three models of continuing education and training associated with workplace provisions:

- 1. Wholly work-based experiences where workers learn through everyday tasks and interactions. They learn on their own or through support from more experienced co-workers.
- 2. Work-based experiences with direct guidance. This involves individuals' learning at work supported by the direct guidance of more experienced co-workers or supervisors, through joint work activities and engaging in supported activities for learning that cannot be acquired without the assistance from more experienced workers.

3. Work-based experiences with educational interventions where some form of structured learning is required. The interventions combine learning undertaken through workplace activities supplemented with structured learning tasks that may contribute to formal credits.

The benefits of learning in the workplace contribute at an individual level as well as organisational level. For individuals, it means staying relevant by identifying emerging changes, staying updated, and getting ready for the anticipated future. That is, preparing for the unexpected - changes in the nature of work and changes in employment status. Continuing learning enhances their profiles and extends the scope for new opportunities. They build confidence and generate new ideas that improve productivity and efficiencies. For organisations, it means workers will have the knowledge that is most relevant for work. There will be cost savings from the recruitment of new workers. That is, it is more cost effective for organisations to retain existing employees by supporting their learning and development than hiring. Notwithstanding the considerations suggested above, it is important to understand workers' perspectives of workplace learning and affordances to appropriate the kinds of provisions that are most effectual. This was the focus of the research reported below.

Workers' perspectives of workplace affordances: an Australian investigation

The findings described and discussed in this paper derive from an Australian Research Council funded project about promoting employability of working age Australians. The research project specifically examined how their learning arises across and through working life and how it can be supported more effectively through work activities, education provisions, and other forms of mediation and guidance (Le et al., 2023). The project comprised a threephase process using a combination of qualitative and quantitative procedures in the gathering and analysis of data. These processes included: i) worklife history interviews with Australian working-age adults (n=66) to secure retrospective accounts of worklife learning, ii) survey to gain perspectives from a broader population (n=678) of their worklife learning, and iii) dialogue forum and discussions with relevant stakeholders to consolidate findings and generate specific policy practice recommendations. The sample was recruited through industry and workplace contacts and the networks of the research team. Participants were required to meet a set of criteria that included having a range of roles in public and private sector workplaces. The selection of participants also considered a balance between occupational classifications, age and gender. Some were selected based on having experienced significant changes in their occupations, workplaces or life circumstances (e.g., changing countries due to political circumstances). Essentially, the participants would have a range of work life and learning experiences and outcomes. The background demographics of the interview informants and survey respondents are summarised in Table 1. Overall, the participants were well represented across different criteria such as gender, occupations, culturally and linguistically diverse (CALD) backgrounds, and experiences of 'old economy' and 'emerging economy'.

Variable	Value	interviews N	survey	
			N	%
Gender	Female	30	438	64.8
	Male	36	234	34.6
	Not specified	4	4	.6
Age	≤19	15	13	1.9
	20-29	13	67	9.9
	30-39	15	159	23.6
	40-49	21	146	21.6
	50-59	10	182	27.0
	60+	37	108	16.0
Identified as	Aboriginal and/or Torres Strait	8	106	15.7
	Islander			
	Australian born (non-	10	276	40.9
	Indigenous)			
	Migrant from English	30	177	26.2
	background			
	Migrant from non-English	36	116	17.2
	background			
Highest	Junior secondary school	1	27	4.0
qualification	Senior secondary school (i.e.,	2	53	7.9
	year 11 and 12)			
	Vocational certificate	0	82	12.1
	Diploma/Advanced Diploma	24	100	14.8
	Bachelor Degree	16	172	25.5
	Postgraduate Qualification	24	241	35.7

Table 1 Background demographics of 66 interview informants and 678 survey	
respondents	

From detailed work history interviews in Phase 1, it was possible to identify changes that initiate, shape and represent transitions that working age adults needed to negotiate across their working lives, comprising those associated with life stages; employment status, occupations, location, physical and psychological well-being, and lifestyle (see Billett et al., 2021). During these transitions, employability was the key concern, including the requirements for work, how they had transformed, and the kinds of learning needed for employability and how these had arisen through everyday workplace activities and interactions; and processes of guidance and support, including educational interventions. In addition to experiences in workplaces and learning of different kinds, the informants reflected on a range of societal, workplace, educational and personal practices that have assisted them in securing learning across their working life to sustain their employability. These were then consolidated to formulate the survey in Phase 2 to further elaborate and augment these outcomes. Then, how worklife learning promotes employability was advanced in Phase 3. This included consolidation of findings, drawing out deductions, addressing the concern about enhancing learning activities in workplaces and tertiary education and generating specific practice and policy recommendations for educational institutions, workplace and governmental considerations. This paper draws on data from Phases 1 and 2, and the following sub-sections elaborate workplace contributions to individuals' learning that supports their employability across working life. They report and discuss working age adults' perspectives of work-based experiences, workplace affordances, and recommended practices for workplaces to enhance and sustain workers' learning and employability. Pseudonyms are used in the narratives of the informants' worklife stories.

Work-based experiences

The informants reported different kinds and domains of knowledge to sustain employability across their working lives. Different combinations of workplace experiences and educational provisions are needed at different transition points to support and guide that learning. Those kinds and combinations of experiences and support varied across different informants as they came to engage in those experiences and utilise the available supports to realise their learning. The Phase 1 findings suggest that the models of continuing education and training, proposed by Billett et al. (2016), form the foundations of what might comprise an education system that can assist workers in sustaining their ongoing development and employability, and promote the changing skills requirements for transforming productivity requirements. The models associated with work-based experiences comprise: i) wholly work-based experiences (i.e., on-the-job), ii) work-based experiences with direct guidance (e.g., mentoring, demonstrating), and iii) workbased experiences with educational interventions (Billett et al., 2016).

Wholly work-based experiences

Many informants reported that the ability to participate and undertake work tasks is the key factor that supports their learning. However, a combination of educational provision and practice-based experiences is necessary for significant positive occupational transitions. Overall, the key locus for the learning and development of this kind arose through one's own efforts and intentionality.

Salim, for example, reports that he is constantly and actively seeking to learn from opportunities that arise from those around him. He provides the clearest examples by reporting how he learnt and continues to perfect his English, and also through observing and imitating what other workers in the construction industry did. He also refers to similar practices and learning how to be a businessman and run a coffee shop with the highest level of profitability. So, it seems that he is an energetic and intentional learner, and those intentions are driven by imperatives that are very close to him. Initially, these were about survival and about satisfaction, a sense of self and personal well-being. Yet, along the way when there have been significant occupational transitions, not surprisingly, in the two most extreme examples (i.e., becoming a builder and opening a coffee shop), these have been realised through a combination of educational experiences and opportunities to practice, because both of these required not only the learning but certification of it.

Danim was engaged in doing a lot of the work just by observation, imitation plus trial and error. He reports that his learning was supported by engaging with those around him who are trusted and respected (i.e., parents, brother and sister) and also some others he encountered in his work life. There was a range of situations provided through educational provisions (i.e., incomplete TAFE program in business management paid training with an experienced contractor) – that assisted his learning associated with customer service marketing in his grocery shop and then technicalities associated with the NBN rollout work.

For Ingrid, there is a consistent pattern similar to Salim and Danim's throughout her occupational transitions, which included an educational provision of some kind. She acquired a wide scope of occupational knowledge through a combination of educational activities and 'winging it' - haphazard trial and error. It is noteworthy that on at least two occasions she found herself engaging in work which was uncongenial (i.e., travel agent and real estate agent), both of which required relatively low level of entry level qualifications and were quite individually

focused. Her efforts in utilising her studies, seeking out employment, positioning herself in businesses, opening a shop and then converting a home into a student residence are all indicative of an agentic individual who is active both in terms of learning and worklife trajectories. In this way, much of the informants' learning across their working life, including initial occupational preparation, and continuing development arose through wholly practice-based experiences.

The agency of the learner in work can also be complemented by their activeness as a guide or supporter of co-workers. That is, learning through wholly work-based experiences can emerge from the need to teach and or support others. This becomes a source of learning. To successfully support others' learning can be a source of learning. Nathan reports learning a lot about the nature of the government department he worked in for a time, its cultural practices and how these practices impacted his employability through supporting co-workers to prepare and write successful applications for promotion.

Work-based experiences with direct guidance

Interestingly, workers claim to learn mostly through their own efforts first before seeking assistance and guidance from supervisors or other workers. This is consistent with the Australian PIAAC data (OECD, 2013).

In our study, eight informants report that they were afforded training, assistance or support for occupational development. A basic qualification for entry into the role was not required in most cases. There was a combination of experiences on the job and educational provision of some kind for certification by these workplaces. As such, the employees can learn about their work roles as they are engaged in tasks and receive support at work.

John left high school at the age of 16 and did not gain any formal qualification. By learning on the jobs, he was able to establish a successful career in logistics and inventory management, working mainly for large natural resources companies as a fly in- fly out (FIFO) worker to remote locations. Most of his roles are contracts or fixed-term assignments, which he sourced himself through his networks or was referred to or headhunted. He started his first paid employment in his father's business (scuba diving retail), thus entering the workforce as a novice and being guided and mentored by his father. The learning in this job led him to a larger company of its kind, taking up a more senior role as a warehouse manager, where he developed further skills by learning from others (through a buddy system) and by self-learning. This became a consistent approach to learning for John in later roles and importantly afforded him to transition successfully across various roles.

On-the-job learning alone does not always result in a successful transition. This happened to Anastacia. At one stage, Anastacia was employed as a Property Surveyor. Despite having a degree in economics and business, she found the role challenging as she did not have any formal experience or education in risk and asset assessment. She utilised some of her finance knowledge evaluating assets and their depreciation. She was not prepared or trained for that role, but she managed by drawing on past knowledge and experiences. Yet in another role, as a research project coordinator, Anastacia received support from peers who either performed certain tasks that were required for the project or taught her how to complete certain tasks. There was no formal training provided given that she joined halfway through the project. She was exposed to various staff development opportunities where she learnt and developed other skills (e.g., using statistical software programs). At one of these events, she met a facilitator who encouraged her to pursue her career and studies in data science. It is evident that whilst much learning across working life occurs through practice and is largely mediated by the learner's efforts, there are still circumstances in which engaging proximally with more expert or experienced others is essential. These particularly appear to be the case when knowledge that is difficult to learn or access is required to be learnt.

Work-based experiences with educational interventions

Apprenticeships stand as a good example of this kind of learning. That is, supported by expert input from trainers either on- or off-site, or using projects, such as action learning, to extend this learning and enhance practice aspects of work. The learning is often accredited and leads to certification.

Depending on the nature of the occupations (e.g., those associated with the healthcare and support sector) on-going training and continuing professional development to upgrade skills and knowledge of the work is mandatory for individuals to sustain their employability. Learning may be provided by internal and/or external providers. The employees are expected to exercise bounded agency, working within sets of parameters associated with the sector in which they are employed. Marcy (a healthcare worker in a nursing home), Annita (a healthcare worker in the disability support centre), and Linda (a nurse in a medical clinic). These workers are required to attend regulatory training and meet the compliance requirements at their workplaces. Their learning is afforded by their workplaces and delivered by external training providers. Apart from Linda, whose nursing qualification is essential to enable the transition, others are encouraged by their employers to undertake educational programs to gain appropriate qualifications to sustain their employability. So, Marcy, at a certain stage of her career, completed a Certificate IV in Aged Care and Community work. Annita, after two years of working for her employer, completed Certificates III and IV for disability.

In another workplace (not healthcare), James was provided with a structured learning experience at one of his workplaces, the cardboard box manufacturing company. As a trainee, he was provided with an apprenticeship-like preparation in this company. This included being rotated through all of the production areas within the company, and then in the design area and also with a stencils and printing section. When he moved into the sales section of this workplace, his learning was also scaffolded. He commenced working on the phone with existing customers (internal sales) to engaging with new customers and then eventually becoming a sales representative. He was offered a car and a set of clients but was required to achieve particular monthly budgets. Similarly, as an assistant designer, working in the design room as a pattern maker, Beau was provided with highly structured training, an apprenticeship-like preparation in the company making men's suits and trousers. In a later occupational transition, Beau was again engaged in a structured set of experiences to ease him into the process of teaching through the beginning teacher preparation program. He then continued with his diploma of teaching while being employed as a Technical and Further Education (TAFE) teacher.

Another form of work-based experiences with educational interventions is structured dual experiences. This is a formal apprenticeship - a form of educational provision that is essential to allow occupational transitions and results in certification that is recognised by industry. Several informants (e.g., Alex, Damien, Joe, Harry and Paul) in our study report that they completed their formal apprenticeships at an early stage of their working lives. However, the scope and extent to which they practiced the vocations in which they were trained varied due to personal circumstances. Alex, for example, had the opportunity to be employed in the technical side of occupations associated with his mechanical apprenticeship. He continued to engage in some casual maintenance work after retirement. Joe progressed from the technical side of the electrical vocation (i.e., a qualified electrical fitter) to an administrative role (i.e., a Consumer Liaison Officer) and then in a support/consultancy role (i.e., a Project Support Officer). Paul, on the other hand, upgraded his 5-year apprenticeship in toolmaking to a higher-level qualification (i.e., a Diploma of Engineering and a degree in Mechanical Engineering) as he transitioned into different roles during his career from being a Fitter to becoming an Engineer then Chief Mechanical Engineer. Damien, however, utilised his apprenticeship in manual arts to develop a different career trajectory. He only stayed in the trade for approximately six months then completed a course in teaching to become a manual arts teacher in secondary schools. It is noteworthy that all of these informants secured continuity in practicing the occupations in which they were trained, albeit in different ways. It was the combination of somewhat similar educational provision (i.e., formal apprenticeships) and different workplace experiences that supported and guided their learning in different ways. These informants and their distinct experiences and learning were driven by different subjectivities and intents.

The three models emphasise the significance of learning experiences in workplaces where individuals learn in the course of their daily work practices, have access to direct instruction and guidance provided by workplace-based experts or teachers, and are assisted by co-workers when needed. The situational bases for learning to meet the specific requirements of particular workplaces, which are determined by the nature of services and production goals, shape what workers and their managers see as important to learn. The data from this study suggest the three models in different ways and combinations are well aligned with the needs of those workers who are most interested in enhancing their competencies to meet productivity levels, sustain their employment and advance their careers. Workers with these goals prefer their learning to be enacted in and through everyday work, usually by working alone in the first instance and supported by other workers, supervisors and trainers if and when needed (Billett et al., 2016). Some of that support may also be provided by educators/trainers from vocational education institutions. These educators/trainers are required to be involved if learning needs to be accredited for a qualification or to meet regularity requirements. In terms of the effectiveness of the three models, it is the quality of social interactions and the attitudes of employees and managers that underpin what is regarded and promoted as quality learning in the workplace (Billett et al., 2016). To this end, it is important to elaborate on workplace affordances and practices that contribute to augmenting such quality learning and experiences in the workplace.

Workplace affordances and practices

In addition to learning experiences in workplaces, the informants reflected on a range of societal, workplace, educational and personal practices that have assisted them in securing learning across their working lives. These practices vary across different work settings and are person-dependant. Workplace practices are initiated and shaped by the workplace norms, forms and practices in the physical and social circumstances where the individuals are employed. Many informants report on the characteristics of a supportive working environment featured in the form of practices where employees are provided with opportunities to i) progress into more senior roles, ii) acknowledge and draw upon experience and knowledge, iii) receive continuous training and professional development (including mentoring, co-worker support, and structured training), iv) rotate work roles or engaging in different kinds of work, v) practicing a high level of discretion, vi) working across different settings, and vii) engage in an educational program to upgrade knowledge and skills. Table 2 summarises the instances of reported workplace practices, hierarchically ranked based on the frequency of the reported practices.

Workplace practices	n
Progressing into more senior roles	42
Acknowledging and drawing upon experience and	27
knowledge	
Organized/structured training	24
Mentoring	23
Rotating work roles or engaging in different kinds of	21
work	
Practising high level of discretion	20
Continuous training and professional development	20
Co-worker/peer support	18
Working across different settings	16
Engaging in an educational program to upgrade	14
knowledge and skills	

Table 2 Instances of workplace practices reported by 66 informants

As shown in Table 2, the opportunity to progress into more senior roles was reported by the majority of the informants (i.e., 42 out of 66) as a key feature of a supportive workplace. A promotion is an incentive for workers to continue learning and maintain employability. This is also an acknowledgement of their experience and worklife learning. The workplaces are perceived to be supportive working environments and often have certain promotion schemes in place which creates flexible career pathways, allowing individuals to work to their strengths. Promotions as a pathway were important in providing individuals with opportunities and prospects for progression in their career thus learning to sustain their employability.

Interestingly, educational programs to upgrade knowledge and skills were least frequently reported (i.e., only 14 out of 66). This is likely because engaging in educational programs fulfills much of the initial occupational preparation and supplements on-going learning. Those experiences are through programs based in educational institutions or offered online. The experiences provide the kinds of learning individuals require for specific goals, such as changing occupations or developing new skills that cannot be learnt through their current work. However, some workers realise their learning through a combination of workplaces and educational provision of some kind occurring during their participation in their workplaces. Some informants experienced transitions to occupations where a high level of qualification was a requirement. They either obtained the qualifications to progress into more senior roles within the same workplace or engaged in parttime or fulltime studies to transition into other occupations. For these informants, the transitions were personally initiated and quite intentional.

In addition to the workplace affordances, the informants also suggested a range of measures associated with learning. These were formulated as practices/strategies recommended to be enacted by workplaces given the key role played by experiences in work settings and the development of adults' occupational competence and workplace requirements. Phase 2 survey respondents rated the importance of these workplace practices/strategies on a 5-point Likert scale, ranging from Not Important to Extremely Important. Their responses are hierarchically ranked mean scores (i.e., averaged responses) in Table 3. The practices comprise: i) clear and transparent processes for engaging in work, learning opportunities and advancement, ii) work arrangements that are sensitive to family responsibilities, iii) retention policies for older workers, iv) inclusive work environment, v) workplace mentoring, vi) structured mentoring, vii) developmental plans for individual workers, and viii) on-site continuing education and training (CET) provisions.

Table 3 Ranking of the importance of workplace practices to promote
employability

Workplace practices/strategies	Mean	Rank
clear and transparent processes for recruitment, promotion and retention of	4.25	1
workers		
working and learning processes that are sensitive to family responsibilities	4.11	2
retention policies for older workers	4.10	3
inclusive work environment (genuine inclusion of workers with special needs)	4.09	4
workplace mentoring as part of work activities	4.02	5
structured mentoring for career progression	3.96	6
learning and development plans for individual workers	3.94	7
on-site continuing education and training	3.87	8
off-site continuing education and training	3.73	9

As shown in Table 3, clear and transparent processes for recruitment, promotion and retention, were considered highly important, being ranked first, followed by working and learning processes sensitive to family responsibilities in the second rank. At the bottom of the rankings were on-site (ranked 8th) and off-site CET (ranked 9th) training. This suggests that workplaces were not expected to provide CET or structured training, including structured mentoring for career progression (ranked 6th). Rather, employability is perceived as a process largely mediated by individuals as they advance through their careers. That is, adapting what they know, can do, and value to the specific requirements of the circumstances of practice (Billett, 2022) and maintaining occupational currency.

Across working life, opportunities for advancement or more broadly applying skills requires adaptability. Both forms of advancement require workers to adapt what they know, can do, and value to different circumstances and tasks. Hence, workers' adaptive capacity is central to their ongoing employability as workplace and occupational requirements change. In this regard, workplaces can primarily contribute to achieving two (out of four) goals of employability: i) sustaining employment and ii) securing advancement (Billett, 2022), mediating individuals' learning process to extend employability in the form of advancement or extending the scope of occupational practices.

Conclusions

The findings from the study highlight the exigencies of workplace learning and validate that the social, cultural, physical and material elements in work sites provide rich sources of learning for working adults. However, some form of guidance and/or educational interventions further consolidate what they can learn individually through everyday work tasks. Moreover, learning becomes more effective if organised and structured around daily work tasks. Hence, three continuing education and training models suggested by Billett et al. (2016) have relevance. Individual experiences are gained as workers engage in the moment by moment learning and work though such learning is contingent on the kinds of experiences that may be available in the course of work tasks. These may be routine activities and interactions where workers can learn independently or with indirect guidance to achieve efficiencies. Direct guidance can be facilitated by experienced workers (e.g., supervisors/managers or co-workers). This aligns with Eraut's (2007) research showing that workers learn more from others in proximity. The findings also vouch for Eichinger and Lombardo's (1996) 70:20:10 model which holds that 70% of workers' learning arises from experiences in the workplace, 20% from social learning (interactions with others) and 10% from formal courses.

Educational interventions can be provided by internal trainers or those from educational institutions. In any case, effectual learning is contingent upon workplace affordances, the scope of experiences accessible to workers, and the agency and constructive efforts of the individuals.

Drawing on the findings of our study, we suggest a set of considerations to review and appraise workplace practices to enhance workers' employability and worklife learning. These considerations are centred around the three models for continuing education and training proposed by Billett et al. (2016) and on a continuum of expansive and restrictive learning environments (Fuller & Unwin, 2011).

- 1. Aligning workplace practices and the organisation of opportunities to match with workers' personal curriculum whereby they can engage in wholly work-based experiences. This calls for careful design of the learning curriculum in practice settings as well as workers' agency to secure learning opportunities.
- 2. Affording a range of opportunities for learning individually, performing higher duties, and working across different settings to widen the scope of tasks and rotational work with direct and/ or indirect guidance. These arrangements could be included in individual professional development plans and integrated with the workforce development plans of workplaces.
- 3. Supporting workers to undertake certified programs at educational institutions to upgrade their knowledge and skills. Such support could include funding for fees and time away from work to attend courses. Workplaces could also negotiate the delivery of in-house training by internal or external providers.

Notably, the participants in our study stressed the importance of workplace practices to support learning, sustain employment and promote employability. These included processes for recruitment, promotion and retention. Interestingly, there was less expectation from workers for provision of continuing education and training, instead greater emphasis on the kinds of affordances and a opportunities they can access at work. This implies workers are willing to take agency for their learning in workplaces.

References

- Australian Bureau of Statistics. (2023). *Education and Work, Australia*. Retrieved from https://www.abs.gov.au/statistics/people/education/ education-and-work-australia/may-2023
- Billett, S. (2001). Learning through work: Workplace affordances and individual engagement. *Journal of Workplace Learning*, 13(5), 209-214.
- Billett, S. (2004). Workplace participatory practices: Conceptualising workplaces as learning environments. *Journal of Workplace Learning*, *16*(6), 312-324.
- Billett, S. (2009). Conceptualizing learning experiences: Contributions and mediations of the social, personal and brute. *Mind, Culture and Activity, 16*(1), 32-47. https://doi.org/10.1080/10749030802477317.
- Billett, S. (2009). Personal epistemologies, work and learning. *Educational Research Review*, *4*, 210-219
- Billett, S. (2010). *Learning through practice: Models, traditions, orientations and approaches.* Dordrecht: Springer Netherlands.
- Billett, S. (2022). Promoting graduate employability: Key goals, and curriculum and pedagogic practices for higher education. In B Ng Ling (Ed.), *Graduate employability and workplace-based learning development: Insights from sociocultural perspectives.* Dordrecht: Springer.
- Billett, S. (2023). Learning across working life: a product of 'personal curriculum'. In Billett, S., Salling-Olesen, H. & Filliettaz, L. (Eds) Sustaining employability through worklife learning: Practices and policies. Dordrecht, The Netherlands: Springer Nature. (Chapter 10) (pp. 209-227) https://doi. org/10.1007/978-981-99-3959-6_10.
- Billett, S., & Choy, S. (2012). Emerging perspectives of and challenges for workplace learning. In J. Higgs, R. Barnett, S. Billett, M. Hutchings, & F. Trede (Eds.), *Practice-based education: Perspectives and strategies.* (pp. 145-160). Rotterdam, The Netherlands: Sense Publishing.
- Billett, S., Choy, S & Le, A. H. (2023). Lifelong learning across working lives: Personal, social and maturational factors. In Evans, K., Lee, W O., Markowitsch, J & Zukas, M. (Eds) *Third International handbook of lifelong education* (pp. 421-441). Dordrecht, The Netherlands: Springer Nature. https://doi.org/10.1007/978-3-030-67930-9_23-1.
- Billett, S., Dymock, D. & Choy, S. (2016) (eds). Supporting learning across working life: Models, processes and practices. Springer, Dordrecht, The Netherlands ISBN 978-3-319-29017-1
- Billett, S., Le, A. H. & Salling-Olesen, H. (2023). Practices and strategies to support worklife learning: The Australian context. In Billett, S., Salling-Olesen, H. & Filliettaz, L. (Eds) Sustaining employability through worklife

learning: Practices and policies. Dordrecht, The Netherlands: Springer Nature. (Chapter 14) (pp. 307-335) https://doi.org/10.1007/978-981-99-3959-6_14.

- Billett, S., Le, A. H., Smith, R., & Choy, S. (2021). The kinds and character of changes adults negotiate across worklife transitions. *International Journal* of *Lifelong Education*, 1-15. https://doi.org/10.1080/02601370.2021.19897 23.
- Billett, S., Salling-Olesen, H. & Filliettaz, L. (2023) (Eds). Sustaining employability through worklife learning: Practices and policies. Dordrecht, The Netherlands: Springer Nature. Dordrecht, The Netherlands: Springer Nature. https://doi.org/ 10.1007/978-981-99-3959-6.
- Choy, S. & Le, A. H. (2023). Contributions of tertiary education. In Billett, S., Salling-Olesen, H. & Filliettaz, L. (Eds) Sustaining employability through worklife learning: Practices and policies. Dordrecht, The Netherlands: Springer Nature. (Chapter 12) (pp. 261-283) https://doi.org/10.1007/978-981-99-3959-6_12.
- Eichinger, R. Lombardo, M. (1996). *The career architect development planner*. Lominger Ltd.
- Eraut, M. (2007). Learning from other people in the workplace. *Oxford Review* of Education, 33(4), 403-422. doi: 10.1080/03054980701425706.
- Frost, N. Zukas, M., Bradbury, H., & Kilminster, S. (Eds.) (2010). *Beyond reflective practice: New approaches to professional lifelong learning.* London, England: Routledge.
- Fuller, A. & Unwin, L. (2011). Workplace learning and the organization. In Malloch, M., Cairns, L., Evans, K. & O'Connor, B. (Eds.), *The SAGE handbook of workplace learning* (pp. 46-59). London: Sage Publications.
- Gherardi, S. (2009). Community of practice or practices of a community. *The SAGE handbook of management learning, education, and development,* 514-530.
- Le, A. H., Billett, S., Salling-Olesen, H. & Bargallie, D. (2023). Investigating learning for employability: Method and procedures. In Billett, S., Salling-Olesen, H. & Filliettaz, L. (Eds) *Sustaining employability through worklife learning: Practices and policies*. Dordrecht, The Netherlands: Springer Nature. (Chapter 4) (pp. 83-99) https://doi.org/10.1007/978-981-99-3959-6_4.
- Organisation for Economic Co-operation and Development. (2013). OECD skills outlook 2013: First results from the Survey of Adult Skills. OECD.
- Organisation for Economic Co-operation and Development (OECD) (2023). *Working age population (indicator)*. doi: 10.1787/d339918b-en.
- Searle, J.R. (1995). The construction of social reality. London: Penguin.

- Smith, R. (2023). The trajectories of worklife transitions. In Billett, S., Salling-Olesen, H. & Filliettaz, L. (Eds) Sustaining employability through worklife learning: Practices and policies. Dordrecht, The Netherlands: Springer Nature. (Chapter 7) (pp. 145-169) https://doi.org/10.1007/978-981-99-3959-6_7.
- Tynjälä, P. (2008). Perspectives into learning at the workplace. *Educational Research Review*, *3*, 130–54.
- Tynjälä, P. (2013). Toward a 3-P model of workplace learning: a literature review. *Vocations and Learning, 6*, 11–36.

About the authors

Dr Sarojni Choy is Professor of Adult and Vocational Education at Griffith University, Brisbane, Queensland Australia. Her teaching and research expertise are in workplace learning, adult education, vocational education and training, lifelong learning, integration of, continuing education and training, professional development and workforce capacity building.

Dr Anh Hai (Leah) Le is a research fellow at Griffith University. Her research interest focuses on workplace learning and curriculum development in tertiary education, with a specific emphasis on the process of building knowledge through scholarly engagement with industry and tertiary institutions.

Contact details

Email: s.choy@griffith.edu.au Email: leah.le@griffith.edu.au