

Part IV

Practice-Based Learning Activities

This part comprises reviews and analyses of the current state of research on work-related learning activities occurring outside educational institutions – e.g. workplaces, everyday life, private environments – covering intentional as well as incidental learning. Central to this part is understanding, illustrating and elaborating the roles that practice-based learning activities play in the development of occupational identity and capacities, as well as being utilised as sites for ongoing professional learning across lengthening working lives. Included here are contributions that adopt the educational lexicon and discourse to understand, legitimated and illustrate the ways which practice-based activities and experiences are central to professional formation.

In the opening contribution to this part, Anneli Eteläpelto, Katja Vähäsantanen, Päivi Hökkä, and Susanna Paloniemi make the central case about the importance of individuals' engagement with practice-based experiences for their professional learning. Entitled – *Identity and agency in professional learning* (Chap. 24) – it describes and illustrates the ways in which professional identities and professional agency mediate workplace learning at both the individual and work-community level. They commence by outlining some of the key challenges to professional practice and the role that learning for and through practice can be aligned with those challenges. The authors next develop a case for the centrality of both agency and identity as key mediating factors in individuals' learning, of which learning through work is no exception. Next, they offer a set of characteristics of effective learning through and for work and emphasise the centrality of learner agency within these characteristics. Taking a specific approach to promoting professional learning, Jan Breckwoldt, Hans Gruber, and Andreas Wittmann in that chapter entitled – *Simulation learning* (Chap. 25) – set out by identifying different kinds of simulations and their use for assisting individuals initially learn and further develop their occupational capacities. The scoping of that purpose includes the ability to engage in activities and learn from them while minimising potential harm to others, consequences for organisations and at the same time provide access to activities in circumstances which promote authenticity as part of the experience. They also identify

the premises upon which the efficacy of simulations for learning professional knowledge is premised. These include a consideration of its limitations as well as contributions. In particular, the authors focus on the use of electronically mediated simulations and their application to learning in and through health care. Through this occupational context the case is made for how simulations can be used to promote effective professional learning. Following this contribution on simulation learning, the chapter by Christian Harteis and Johannes Bauer – *Learning from errors at work* (Chap. 26) – elaborates an aspect of simulations and an approach to supporting learning in its own right. Discussing what constitutes errors and how they can be used productively to support learning in and through work, this chapter reviews what is currently understood about this process and its applicability to a range of occupations and professional practice and also the kinds of conditions under which learning through errors can be effective. Drawing upon a range of studies and also examples, this chapter sets out bases for understanding how errors can be used to promote professional learning and the important contextual issues associated with what constitutes errors, error cultures, how they are enacted and how errors are perceived by individuals in workplaces, handled organisationally and used to develop professional capacities.

Stephen Billett and Raymond Smith in their chapter – *Learning in the circumstances of professional practice* (Chap. 27) – propose that learning through practice has been, and continues to be, the principal process through which work, the production of goods and services on which human society depends, is enacted and developed. They hold that work can be viewed from many personal and social perspectives. It may be seen in terms of occupations and professions and vocations that are entered into, taken up, learned and practiced through doing what is necessary to make a way in the world, to secure a present and future livelihood. Equally, it may be seen in terms of skill development and deployment, structured and guided participation in culturally organised practice and their formation and positioning, also the transformation and repositioning, of knowledge, identities, systems and values. So, work is a complex human activity that can be viewed from many different perspectives, each enabling some illumination of how it is enacted and accomplished as a personal and social practice. In all, they propose that, work and the socio-personal practices by which it is recognised and conducted can be understood as workers' engagement in and the legacies of being and learning in circumstances of professional practice. Understanding how people learn through their work, through their experiences in circumstances of professional practice, and potentially seeking to promote and improve that learning is important for the continuing and sustained development of the people, systems and resources necessary to human flourishing and the production of goods and services on which this depends. Complementing this account, Geoffrey Gowlland uses an anthropological approach to detail the processes and efficacies of – *Apprenticeship as a model for learning in and through professional practice* (Chap. 28). Differentiating between traditional and modern forms of apprenticeship, he argues that they can be characterised as a mostly non-didactic way of teaching and learning, grounded in a local context and dependent on participation of the learner in work-related activities, he makes the case for its

applicability to learning in and through professional practice. The acquisition of skills during an apprenticeship involves, among others, social participation and interaction, observation and imitation, and engagement through the senses with tools and materials. He holds that apprenticeship is not simply an educational context in which learners acquire technical skills, but a learning environment in which worldviews, ethical engagement and moral values – in particular related to work, work identities, class, gender, and the place and role of artisans and skilled workers in society – are shaped as part and parcel of the process of learning. In doing so, he proposes a model of supporting learning within and through professional practice which likely has applicability to professional learning per se.

Britta Herbig and Andreas Müller contribution focuses on the kinds of knowing and knowledge which is used by professionals in performing that work and yet may be difficult for them to articulate and to be captured through research procedures. Entitled – *Implicit knowledge and work performance* (Chap. 29) – the authors refer to the central role played by these forms of knowledge which are hard to declare. They give attention to the ways in which implicit forms of knowledge and knowing go beyond the person and shape the way individuals come to work together, in teams for instance. The authors use the dimensions of personal and collaborative implicit knowledge to describe and illustrate the characteristics of this form of knowing and its contribution to both work and its necessity for professional learning. They also refer to the limitations of knowledge which has been learnt to the degree by which its application is often enacted with minimal conscious monitoring. Following from this consideration of implicit knowledge, Eugene Sadler-Smith's chapter – *Intuition in professional and practice-based learning* (Chap. 30) – sets out to define and theorise what constitutes intuition and, in particular its contribution to professional practice and learning. He does this by explaining the role of intuition within expert performance by adopting dual processing theory, then mapping distinctions between intuitive expertise from heuristics and biases and other types of intuition. Next, the conditions under which intuitive expertise succeeds or fails are described. Then, he identifies a set of factors influencing the acquisition of intuitive expertise through activities and interactions in professional settings. Then, some practical implications are advanced for educators and others whose focus is on the development of intuitive expertise in professional contexts.

Bente Elkjaer and Ulrik Brandt in that chapter – *An organisational perspective on professionals' learning* (Chap. 31) – connect with a theme raised in the first part about the changing character of the professions and contemporary professional practice with its rich associations to employing organisations. In particular, they engage with issues of professional knowledge, knowledge sharing, learning and identity within the context of learning within organisations. In doing this, they outline the field of what constitutes organisational learning and how this contributes to understanding professional learning. In particular, they based their analysis on three distinct perspectives to assist and use these to elaborate a case for the role of professionals within organisations and how their learning and development can be understood. Morten Sommer in his chapter – *Professional learning in the ambulance service* (Chap. 32) – provides a case of how the need for continuous learning across

working life can be addressed through practice-based experiences. He argues that because of the crucial nature of their work, ambulance service personnel need to be continually learning and developing their expertise. Drawing upon a study involving participant observation, he argues that much if not most of the learning required across these professionals working lives can be developed through practice-based experiences. Moreover, these are likely to be the most effective and engaging of experiences. Nevertheless, he also proposes that educational interventions are sometimes warranted and essential. Importantly, he refers to the different kinds of experiences that these personnel engage with as meeting particular kinds of needs and that the organisation and enactment of learning experiences needs to focus on identifying and then selecting appropriate experiences, albeit in practice or educational settings. It is the two sets of contributions, that in conjunction can assist sustain these workers capacities across their working lives.

Finally, Stephen Billett in his chapter – *Mimetic learning at work: Learning through and across professional working lives* (Chap. 33) – seeks to explain the actual process of learning in and through professional practice and across working lives. Drawing upon historical, anthropological, cultural and sociocultural psychological ideas, the process of human learning through mimesis (i.e. observation and imitation) is discussed and illustrated, and then elaborated into a broader scheme comprising mimetic learning. This scheme acknowledges the dual contributions of both inter-psychological (i.e. between the person and the world beyond them) and intra-psychological (i.e. those within the person) processes. Beyond outlining the processes and the conceptual and empirical justifications for them, this chapter also seeks to redress a societal bias which privileges learning experiences within educational programs and experiences and tends to ignore or downplay the contributions from outside of those kinds of experiences. It is proposed that processes such as observation and imitation are high order activities and are fundamental to human cognition and learning and as such as well is occurring all the time and every day they are central to learning and individuals' development across the life course. This approach to understanding human learning and development is held to explain more comprehensively than accounts emphasising either the social contributions to learning or accounts emphasising cognitive processes. Moreover, it seems to be the central process that humans have used across their history to learn, innovate and advance culture and society.