Part III
Educational Institutions and Systems

This part comprises contributions identifying the purposes and processes (i.e. curriculum and pedagogy) used by educational institutions to initially prepare professional practitioners and then maintain their competence across working lives. So, included here are selected accounts of the way educational systems have been organised and enacted to secure professional learning outcomes and what kinds of conceptions of curriculum and curriculum practices are utilised in securing effective professional capacities through educational institutions and systems. In his chapter – *Professional education between school and practice settings: The German dual system as an example* (Chap. 15) – , Peter Sloane provides analysis of the German dual system as a means of securing co-operation between and support for learning across school and practice settings and in doing so identifies key lessons for professional education. Emphasising the three elements of the didactic, organisational and governance factors, he elaborates an explanatory scheme comprising both vertical and horizontal dimensions of cooperation. He holds that, given the incommensurable environments that comprise these two settings, and their distinct rationales, that issues associated with reconciling organisation and governance imperatives, and are central concern for didactical issues within these reconciliations is central to how this functioning cooperation is an active and sustained. It is these factors and principles informing this cooperation which he holds have specific implications for professional education. Focusing on the same set of educational practices, in their paper – *The dual system of vocational education and training in Germany: What can be learnt about education for (other) professions* (Chap. 16) – Bärbel Fürstenau, Matthias Pilz and Philipp Gonon offer an account of how this education system has transformed over time in response to changes to stakeholders' needs and circumstances of its enactment. Changing concerns about the cost to enterprises of this system of education, and how its utility for those enterprises can be sustained are discussed, as is the ongoing concerns about the parity of standing between not only general and vocational education, but across different kinds of occupations. In this way, the central concern of this system about the integration of work and learning is set amongst sets of concerns which are both highly situated, but also embrace

broader societal concerns about educational worth. Madeleine Abrandt Dahlgren, Tone Dyrdal Solbrekke, Berit Karseth, and Sofia Nyström also address issues associated with relations between the provision of education and the practice of the occupation. In their chapter – *From university to professional practice: Students as journeymen between cultures of education and work* (Chap. 17) – they identify some consequences of the different ways that professional education is organised and enacted in terms of professional identity formation and professional responsibilities. A key focus for this chapter is the ways educational system provides a pathway for students as they transition from being students to practitioners, through a process of negotiating two distinct cultures: education and work. These transitions are held to be set within and enmeshed within these two distinct sets of cultural practices. In this way, this chapter explores the different level the relations between those participating in educational systems and what those systems afford.

This theme of providing and integrating experiences across educational and practice settings is also the explicit focus of Stephen Billett and Sarojni Choy's chapter – *Integrating professional learning experiences across university and practice settings* (Chap. 18). Given the concerns about the integration of the two sets of experiences in contemporary tertiary and higher education this contributions seeks to identify what are the premises for providing experiences in both settings and seeking to integrate and reconcile them to make more effective the provision of professional education. Drawing upon conceptions from socio-cultural perspectives and curriculum theory, this chapter seeks to offer curriculum and pedagogies premises for ordering and enacting experiences that will intentionally promote the reconciliation of experiences students have in both settings as directed towards a more effective utilisation of those experiences and rich learning outcomes. Effective transitions from professional education are also the focus of Päivi Tynjälä and Jennifer Newton's chapter entitled – *Transitions to working life: Securing professional competence* (Chap. 19). Quite specifically, they identify a series of challenges that graduates report confronting in the early stages of their careers and which positions these transitions as being able to negotiate (successfully) these challenges. Focusing on the challenges associated with being able to secure employment, the adequacy of their knowledge and skills, there efficiency and ability to manage stressful work lives and the formation of professional identity set within working contexts that can be characterised by high attrition rates and transforming occupational practices, this chapter elaborates all of these within a consideration of professional competence. These challenges are illustrated by drawing upon experiences of student nurses' transitions into working within health care settings which illustrate these challenges and the means by which they stand to be negotiated a process which constitutes these transitions.

One of the key goals for individual and workplace professional practice is for greater interprofessional working. This then has become a key focus for education and in particular an emphasis on interprofessional education. In that chapter, Elizabeth Molloy, Louise Greenstock, Patrick Fiddes, Catriona Fraser and Peter Brooks elaborate the issues associated with – *Interprofessional education in the health workplace*

(Chap. 20). Using medical students' experiences of interprofessional working within clinical settings, this chapter identifies the ways in which practice factors and the standing and agency of medical students although key factors in interprofessional working and learning, often inhibited the potential of these experiences and potential for effective and long-term interprofessional working. Faced with new challenges as student and novice doctors, goals for interprofessional education were soon displaced by others associated with professional concerns and development as they exercise what they might describe as necessary resistance. In all, the evidence suggests that easy optimism about the efficacy of interprofessional education leading to more effective cross disciplinary and occupational working through such means may well be misplaced.

Staying within health care, Tim Dornan and Pim W. Teunissen chapter entitled – *Medical education* (Chap. 21) – again examines experiences in practice settings as a means of educating the next generation of doctors, including their motivations as well as the limitations of an overly technically focused medical education curriculum. The authors note that the conceptual bases for understanding medical education processes are now expanding and maturing. They use these bases to understand the identity development of new doctors and offer models (i.e. Professionals learning within practice and the boundaries of practice) about the pathways and transitions towards these nascent doctors formation of a stable occupational identity. Aligning a view about educational systems with the needs of those participating in them is central to the chapter entitled – *A phenomenographic way of seeing and developing professional learni*ng (Chap. 22) – by Ming Fai Pang. As this title implies, he adopts an orientation focused on the way in which professional learning is experienced by workers and students and how they come to know and respond to particular situations and settings. While focusing upon the experiencing and sense making of the learners, from this account and orientation, comes the suggestion about the ways in which particular sets of experiences might be engage with and have particular consequences for students as learners. That is, the ordering of experiences and their consequences for these learners. Curriculum and instructional considerations and consequences are elaborated in this chapter with a particular focus on the development of teachers' professional capacities.

Finally, in this part on education systems, Monika Nerland and Karen Jensen refer explicitly to the knowledge cultures that exist within particular kinds of social practice and professionals learning in education and work settings. Their chapter, entitled – *Changing cultures of knowledge and professional learning* (Chap. 23) – focuses on particular kinds of epistemic objects and practices (including educational systems) and how these contribute to professional learning. The central concern here is developing 'epistemic fluency' – how learners can come to know and engage epistemologically to initially learn professional practice and then to further develop it through engagement in practice. In all, the analysis here is offered of the way in which knowledge cultures afford opportunities for learning in particular ways and how a broad understanding of these cultures can assist the provision of and engagement experiences associated with professional learning.